

A CONCEPTUAL ANALYSIS OF SEX-ROLE IDENTITY AND ITS
INTERACTION WITH GENDER AND CHRONOLOGICAL AGE

By

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Sex-role identity, unlike biological gender, is subject to influence by the social environment. The data indicate that our culture not only differentiates males and females along particular psychological dimensions but that the effect differs contingent on the individual's age-role.

The college-aged female is of particular interest in terms of sex-role identity because she is confronted with the prospect that achievement success may be seen as conflicting with her internalized feminine values by which she measures her success as a woman. Data from past research consistently demonstrate that feminine-typed college students are at a psychological adjustment disadvantage. A meaningful issue is whether these results are at least partially a consequence of the particular phase of the life cycle.

This analysis extended over a broad spectrum of chronological ages from the college-aged individuals to persons over 60 years of age coping with retirement. Sex-role identity was viewed within the new conceptualization of sex-roles that allows for the possibility that a person may

develop both masculine and feminine attributes. Sex-role identity was considered one aspect of "self-identity" and was related to three measures (self-esteem, locus of control, and role consistency) that have a theoretical relationship to psychological health and a sense of self.

Self-esteem scores were highly correlated with masculinity scores, regardless of gender or age. The college-age feminine-typed females were not only lower in self-esteem but also lower in role consistency scores and the most external in locus of control. On the other hand, within the other three age groups, there were no consistent or significant differences in role consistency or locus of control scores associated with the feminine-typed category. There is some indication that the psychological adjustment disadvantage accruing to the feminine-typed college female may be at least partially a consequence of the developmental stage. This is a stage when sex-role identity plays a major role in the establishment of self-identity.

Additional support for the hypothesis that the import of sex-role identity changes with developmental stages was found with reference to men in the oldest age group. A significant proportion of men over 60 years of age diminished their endorsement of "masculine" characteristics and maintained the most internal locus of control and had relatively high role consistency scores.

These findings support the hypothesis of a significant inter-relationship between age role prescriptions sanctioned by society and an individual's global self-concept of masculinity and femininity. Sex-role identity not only impacts on self-identity with changing ascendency, but the influence differs for males and females.



Jacqueline Golden
Chairman

CHAPTER 1 INTRODUCTION

Sex is a highly salient status. With rare exceptions, human beings are unambiguously assigned to the male or female gender at birth, and it is the first status to be announced. Once the assignment is made, the new born infant is reared according to this assignment and the individual is not only subject to a host of expectations but is differentially rewarded and punished by the social environment contingent on this assignment. An individual's biological gender identity is constant. However, his or her sex-role identity (the psychological dimension of masculinity or femininity congruent with the individual's self-concept) is constantly subject to influence by the social environment.

This study undertakes the examination of the concept of sex-role identity and its interaction with gender and chronological age. First, the developmental process of psychological sexual differentiation is explored. Second, the concept of sex-role identity is reviewed in the context of questions being raised by psychologists (Bem, 1974; Block, 1973; Mednick, Tangri, & Hoffman, 1975; Spence & Helmreich, 1978) about the assumptions underlying psychological research on masculinity and femininity conducted over the past three or four decades. Third, a theoretical framework is presented which conceives of sex-role identity within the larger perimeter of ego identity and attempts to integrate changes in sex-role definition

with changes in developmental tasks. Fourth, according to this formulation, hypotheses are derived that attempt to examine the relationships between personality variables associated with a sense of self, an individual's sex-role definition, and the interaction of these variables with gender in four age groups.

The Developmental Process of Psychological Sexual Differentiation

Since learning to be a psychological male or female is one of the earliest and most pervasive tasks imposed on an individual in our culture, the developmental process of sex-typing has generated much research. Generally, researchers have attempted to clarify two major questions: Are there psychological differences between males and females? And, if psychological differences do exist, how did they come about?

Psychological Differences Between Males and Females

The Hampsons and Money (Hampson & Hampson, 1961; Money, 1965b; Money, Hampson, & Hampson, 1957) believe that humans are psycho-sexually neutral at birth and that gender identity is an end product of a sexually dimorphic developmental sequence; i.e., the genetic code does not program gender identity and role as a male or a female in the human species. They posit a critical period phenomenon which asserts that the development of normal adult sexual behavior is contingent on having been socially assigned to a given sex before the age of three or four. Hermaphrodites assigned at birth to one sex because of external genital characteristics have later been reassigned to the other sex so that their social sex identity

will be more consistent with their internal sex characteristics.

If this is done before the age of three or four, the child's later sexual adjustment seems to be normal. However, their sample is small and their data largely retrospective and based on pediatric reports, parent reports, etc.

Diamond (1965) after reviewing a variety of clinical and experimental evidence reaches the following conclusion:

The evidence and arguments presented show that, primarily owing to prenatal genic and hormonal influences, human beings are definitely predisposed at birth to a male or female gender orientation. Social behavior of an individual and thus gender role, are not neutral and without initial direction at birth. Nevertheless, sexual predisposition is only a potentiality setting limits to a pattern that is greatly modifiable by ontogenetic experiences. Life experiences most likely act to differentiate and direct a flexible sexual disposition and to mold the prenatal organization until an environmentally (socially and culturally) acceptable gender role is formulated and established. (p. 167)

Maccoby and Jacklin (1974) after reviewing a massive body of research findings of a more psychological nature conclude that with our present body of knowledge, it is not possible to classify the differential behaviors as being either innate or learned. They propose that a genetically controlled characteristic may take the form of a greater readiness to learn a particular kind of behavior. Aside from some fairly well established differences in intellectual skills, there is unequivocal evidence for greater male aggressiveness. The authors state:

The sex difference in aggression has been observed in all cultures in which the relevant behavior has been observed. Boys are more aggressive both physically and verbally. They show attenuated forms of aggression (mock-fighting, aggressive fantasies) as well as the

direct forms more frequently than girls. The sex difference is found as early as social play begins--at age 2 or 2½. Although the aggressiveness of both sexes declines with age, boys and men remain more aggressive through the college years. Little information is available for older adults. (p. 352)

However, they point out that if one sex is more biologically predisposed than the other to perform a behavior, this fact would be reflected in popular beliefs about the sexes, so that innate tendencies help to produce the cultural lore that the child learns.

It is beyond the scope of this study to review the empirical evidence, but there seems to be general agreement that biological-genetic factors and cultural-environmental factors interact in the process of psychological sexual differentiation. A biological basis for psychological differences between the sexes has not been unambiguously established and even where the evidence most often favors a biological explanation (as in aggression) all that has been clearly established is that there is a sex-linked differential readiness to respond in aggressive ways to the relevant experiences. An individual's aggressive behavior can be strengthened, weakened, redirected, or altered in form by his or her unique pattern of experiences.

The relationship of sex differences to age is more complicated and vague. There are great variations with age not only in what is measured but in how the measurement is taken. In the very young children, naturalistic behavioral observations and parent ratings are fairly frequent. From the time the child enters school through adulthood, the measurements are usually based on questionnaires, self-reports or on experimental situations with a restricted set of eliciting conditions and behavioral measures.

However, what clearly emerges are some underlying presumptions. In the past, psychological investigations have largely been predicated on the assumption that biological gender, masculine and feminine sex-role behaviors and the psychological attributes of masculinity and femininity are tightly intercorrelated and that the distribution of the sexes on these variables has implicitly been assumed to be bimodal. A concomitant assumption has been that cross-sex behaviors and attributes are in a sense pathological with negative implications.

Within the general culture, a frequent assumption has been that sex-role behaviors are not only correlated with psychological characteristics but may also have causal connections. Thus, parents often insist that their children behave according to traditional sex-appropriate standards (such as playing with "sex-appropriate" toys) to forestall the possibility that their children might adopt cross-sex behaviors and become sexually deviant. The goal of socialization has been to inculcate culturally defined sex-appropriate characteristics and behaviors in each sex.

Psychological Sexual Differentiation

Given that there are cultural expectations about how a male or a female ought to behave, theories concerning the process of psychological sexual differentiation have been formulated. Freud's libido theory posits that the basic patterning of sexual attitudes is instinctual in its origins. In outline, psychoanalytic theory states that both sexes typically form strong emotional attachments to the mother in the early years due to her nurturing role. At the age of three to five, the Oedipal complex emerges within the boy as he is

sexually attracted to his mother and wishes to displace his father. However, his recognition of his father's greater power and the fear of castration by his father generates an intolerable conflict which he resolves by renouncing the mother and identifying with the father. This identification leads the boy to adopt the masculine characteristics he sees in his father and eventually internalizes through his father the values and standards set by society for males. In the girl, the sequence of events is more involved and not as clearly outlined. Holding her mother responsible for her castrated state, she turns from her mother and develops a sexual attachment to her father. Due to the realistic barriers that prevent her from gratifying her desire for her father and fearing the loss of her mother's love, the girl resolves the Oedipal conflict by reidentifying with the mother. Freud theorized that the girl's Oedipus complex tends to persist, although in modified form, and her identification with the mother is less intense than the boy's with his father.

Mischel and other social learning theorists stress the importance of modeling and conditioning. Mischel (1966) states:

According to social-learning theory the acquisition and performance of sex-typed behaviors can be described by the same learning principles used to analyze any other aspect of an individual's behavior. In addition to discrimination learning, these principles include the patterning of reward, nonreward and punishment under specific contingencies and the principle of direct and vicarious conditioning.
(pp. 56-57)

Kohlberg, on the other hand, proposes a cognitive developmental theory. He elaborates a theory which assumes that basic sexual attitudes are not patterned directly by either biological instincts or arbitrary cultural norms but by the child's active cognitive

organization of his social world along sex role dimensions. Kohlberg (1966) states:

We shall point out that this learning is cognitive in the sense that it is selective and internally organized by relational schemata rather than directly reflecting associations of events in the outer world. In regard to sex-role these schemata that bind events together include concepts of the body, the physical and social world, and general categories of relationship (causality, substantially, quantity, time, space, logical identity, and inclusion). (p. 83)

Major reviews on sex-typing (Kagan, 1964; Maccoby, 1966; Mussen, 1969; Sears, Rau, & Alpert, 1965) all agree that children acquire behaviors through imitation of parents, but there is little evidence that children systematically imitate same-sex models. In an investigation in which children observed an adult model dispensing toys and snacks to an adult of the opposite sex, Bandura, Ross, and Ross (1963a) reported that girls 3-5 years of age preferred to imitate the powerful controlling model more than the adult recipient, whether the model was male or female. Boys on the other hand tended to imitate the male even when faced with the controlling female adult model and a male recipient. Hetherington (1965) failed to show any consistent tendency for children ranging from 4-11 to imitate the same-sex parent in the choice of aesthetic preferences after they had observed the parents express their choices. There is some empirical evidence that lead researchers to believe that it is not the sex of the model but certain characteristics of the model; namely, nurturance and powerfulness, which promote imitation. Bandura and Huston (1961) report that when 3-5 year old children were exposed to either a rewarding interaction or a cold nonnurturant relationship with a model

prior to performing a task, with the model present, the children tended to imitate the explicit, but functionless behaviors of the nurturant model significantly more than the nonnurturant model. Hetherington and Frankie (1967) examined the effects of parental dominance, warmth, and conflict on imitation in children. They found that, in homes in which conflict had been observed and both parents were low in warmth, children 4-6 years old modeled the behavior of the dominant parent on an imitation task regardless of the sex of the parent or the sex of the child. In homes in which the conflict was low or the nondominant parent was warm, girls imitated the warm parent regardless of sex but boys imitated the dominant parent regardless of sex. The modeling process is certainly operative in the acquisition of a wide variety of potential behaviors; however, knowledge about what behaviors are sex-appropriate is crucial in the performance of an action out of this repertoire of potential behaviors.

The psychoanalytic theorists assume that the sex-typing of behaviors comes about as a result of identification with the same sexed parent. The social learning theorists postulate that sex-typing of behaviors is a product of differential reinforcement (of the children and others) of sex-appropriate behaviors; while Kohlberg's view is that the child's growing understanding of the context of the culturally prescribed roles determines the child's sex-typed behavior choices. The manner in which parents proceed to socialize a child in terms of sex-appropriate behaviors must, of course, depend on the parent's own definition and values if he or she is to differentially reinforce behaviors emitted by the child.

Whatever the underlying mechanisms are that foster sex-appropriate socialization, boys seem to receive more pressures against engaging in sex-inappropriate behaviors, whereas the sex-inappropriate activities of girls are less clearly defined and less firmly enforced. This can be seen not only in the obvious matter of dressing the two sexes but also in direct monitoring of behaviors. For example, a parent is more upset if a boy wears high heels and plays house than when a girl wears boots and plays cowboy and Indians. Two studies have been directed at this question (Lansky, 1967). Parents of preschool children were asked to judge a same-sex parent's reaction to a child's preference for 1 of 2 sex-linked objects, names or activities. No differences were found in fathers' and mothers' attitudes towards boys' and girls' same-sex choices. The primary finding was a significantly more negative parental reaction to cross-sex choices of boys. Fling and Manosevitz (1972) obtained similar results in their study of parents of nursery-school children. Parents were asked to make activity choices from a standardized list of sex-linked activities, and in a subsequent interview they were asked how strongly they would object to their children engaging in any of the activities they had omitted from their choices. Scores were derived that represented the extent of their discouragement of a child's sex-inappropriate activities. Both parents chose more sex-appropriate activities for their sons than they did for girls and much more strongly discouraged sex-inappropriate behavior in sons than daughters.

Mussen and Rutherford (1963) designed a study to test not only the developmental identification hypothesis (i.e., appropriate sex typing of children is a consequence of identification with same sex

parents) but also the hypotheses that parental encouragement of sex-appropriate behaviors of parents self-acceptance of his or her own sex-role both facilitated appropriate sex-typing. The subjects (5½-6½ year olds) were divided into high and low masculine boys and high and low feminine girls by means of a projective test of sex-role preferences (the IT scale). Structured doll play with the children and structured interviews with the parents were used to assess nurturant or punitive relationships between parents and children. Parental personality was assessed with two scales of the California Psychological Inventory. Parental encouragement of appropriate sex-typed activities was estimated with the use of a questionnaire which inventoried each parent's reactions to a list of activities that have been known to differentiate significantly between the preferences of the two sexes. According to the data of this study, the most crucial determinant of the development of masculinity in young boys is the nature of the father-son relationship--boys who see their father as a powerful person in their lives were likely to develop high sex-appropriate responses. None of the other variables had any significant effect on the boy's masculinization. The process of female-typing in the little girls, although directly related to a positive mother-daughter relationship, is also facilitated by a highly adequate mother as the feminine model, and a father who possesses a high degree of masculinity of interests and attitudes and actively encourages the daughter's participation in sex-typed activities. The authors conclude:

From the point of view of learning theory, the role of the parents in masculinizing their sons is primarily that of providing initial motivation to acquire masculine characteristics and behaviors. The general social-cultural milieu further implements

the masculinization by presenting numerous, well articulated and distinct cues for the male sex role and rewards the boy for learning these. . . .

For girls, the social-cultural milieu gives less support in the assimilation of her sex role. Due to the relatively less value of the feminine role in middle class American culture and the relative paucity and nondistinctiveness of cues associated with the female sex role among young children, her parents must assist her in several ways if she is to achieve a high degree of femininity. More specifically, parents are forced to assume three feminizing functions with their daughters, only one of which is like the parents' role in masculinizing boys. They must evoke motivation to acquire femininity, and, in addition, they help the feminizing process by presenting some cues for discriminating the sex roles and by directly encouraging the girls to adopt at least certain kinds of behavior characteristics of the feminine role. (p. 604)

Another View of Parental Variables and the Development of Masculinity and Femininity

Spence and Helmreich (1978) point out some of the problems within the literature on the development of masculine and feminine personality attributes. First they indicate that masculine and feminine "sex roles" have been used as umbrella terms, referring to all the internal characteristics and overt patterns of behavior that may be presumed to distinguish between men and women. They believe this fact has fostered the search for single theoretical or empirical models to account for all gender-related phenomena and the use of measures that tap only a limited behavioral domain to define the multi-faceted concept of masculinity-femininity. Most frequently these measures have been heavily, if not exclusively, concerned with sex-typed interests and activities and have an uncertain relationship with masculine and

feminine personality characteristics. Second, until recently even masculinity-femininity measures that contain only personality trait names or dimensions have been set up as bipolar scales.

Two studies provide suggestive data on the influence of parental behaviors on the development of masculine and feminine characteristics. Baumrind and Black (1967) identified three major patterns of parental behaviors that were labeled authoritarian, authoritative, and permissive. The prototypic authoritarian parent imposes demands with little explanation or allowance for the child's needs and opinions, is generally nondemocratic in disciplinary procedures, but may or may not be affectionate and emotionally responsive. The authoritative parent exercises firm control but recognizes the child's needs and shares with the child the reasons underlying disciplinary decisions. The permissive parent attempts to be highly accepting toward the child's impulses but makes little or no attempt to shape or alter the child's ongoing or future behavior. The nursery school children of these same parents had initially been separated into three groups according to their social and emotional behaviors; the parent behavior clusters associated with each group of children were then determined. The group of children observed to be high in self-reliance, self-control, and had friendly relationships with peers tended to have parents from the authoritative cluster. Authoritarian parents were associated with children who were relatively discontented, moody, and unsuccessful in peer relationships. Children in the third group were relatively more cheerful and less irritable than those in the second group, just described, but had the least self-reliance and self-control. These

data suggest that the development of instrumental characteristics related to self-esteem (also related to masculinity) and social competence is facilitated when the parents combine warmth, reasoning, and acceptance of the child with the imposition of standards of behavior that they expect the child to meet.

Baumrind (1971) again studying nursery school children and their parents identified the aforementioned cluster of parent behaviors plus a fourth, the rejecting pattern, in which the parent is relatively unrestrictive and neglectful. A clear association was found in girls between dominant, purposive, and independent (often associated with stereotypic masculinity) females and authoritative parental behaviors. In boys, the relationships were similar but there was some indication that the extremely firm control of the authoritative parents impaired the development of independence in these otherwise competent boys.

Block (1973) summarizes results that are relevant to sex-role socialization from a larger body of data accumulated for a longitudinal study at the Institute of Human Development. The subjects were between the ages of 30-40 years at the time they were administered the California Psychological Inventory but they were part of a longitudinal study and a great deal of antecedent data was available on these subjects. The subjects were divided into four groups on the basis of two of the California Psychological Inventory scales, the Femininity Scale (Above mean females = highly sex-appropriate, below mean females = low sex-appropriate, below mean males = high sex-appropriate, and above mean males = low sex-appropriate); and the Socialization Scale (Individuals on the high end of the socialization scale are conforming; while individuals on the low end are nonconforming and asocial).

Males and females classified as being highly sex-appropriate and highly socialized appear to have internalized parental characteristics with respect to both sex-role and cultural proscriptions through the process of identification with same-sex parents in a context of familial harmony and traditional parental role definition. The men were relaxed, competent, and comfortable with their masculinity and possessed a rule-respecting, other-respecting value system. The women typified the traditional concept of femininity but were somewhat dissatisfied, indecisive, vulnerable, and lacking in spontaneity. The low-sex appropriate, high-socialized individuals had parents who were less traditional in their sex-role definition and appears to offer a wider range of behavioral and attitudinal options to their children but had established an emotionally satisfying and value-inculcating home. Despite their relatively low sex-appropriate scores, both men and women were comfortable within their sex-role and represented a blending of agentic (instrumental) and communal (affiliative) concerns and the women lacked the tendency to passivity that characterized the high sex-appropriate, high socialized women. The high sex-appropriate, low-socialized individuals had like-sex parents who were neurotic, rejecting and provided poor models for identification and cross-sex parents who were characterized as somewhat seductive. Both males and females exhibited exaggerated sex-role characteristics, were self-centered, and irresponsible. Low sex-appropriate, low socialized individuals had like-sex parents who were emotionally uninvolved and cross-sex parents who were salient and conflict inducing. The men in this group are described by Block as "caricatures of the 'weaker' sex" (p. 524) and the women as assertive, rebellious, expressive, and demanding of independence and autonomy.

The author concludes that the socialization process appears to have differential effects on the personality development of males and females.

For males, socialization tends to enhance experiential options and to encourage more androgynous sex role definitions since some traditionally feminine concerns are emphasized along with the press to renounce negative aspects of the masculine role. For women, the socialization process tends to reinforce the nurturant, docile, submissive, and conservative aspects of the traditionally defined female role and discourages personal qualities conventionally defined as masculine. The sex role definitions and behavioral options for women, then, are narrowed by the socialization process, whereas, for men, the sex role definitions and behavioral options are broadened by socialization. The achievement of higher levels of ego functioning for women is more difficult because individuation involves conflict with our prevailing cultural norms. (Block, 1973, pp. 525-526)

The Concept of Sex-Role Identity

A review of the literature on the psychological differentiation of masculinity and femininity appears to indicate that until recently researchers have accepted the societal belief that there are clusters of "appropriate" masculine and feminine characteristics and that they are bipolar opposites. The implicit assumption has been that girls ought to acquire the characteristics such as nurturance and interpersonal sensitivity prescribed by the culture as feminine characteristics and inhibit qualities such as independence and competitiveness which belong in the masculine domain; and boys ought to acquire masculine characteristics and suppress feminine characteristics. Nearly all the published scales devised to measure masculinity and femininity treat these two dimensions as two ends of a single continuum and as though they were inversely correlated. That is, an individual

is defined as a sex-typed female or a sex-typed male or in some cases sex-reversed. However, in the last few years, there has been a proliferation of research designed to validate a new conceptualization of the psychological dimensions of masculinity and femininity that allows for the possibility that a person may develop both masculine and feminine attributes. This theoretical model contends that while masculine and feminine attributes differentiate the sexes to some degree, they are not bipolar opposites; but in each sex are separate and essentially orthogonal dimensions. Most current measures approach masculinity and femininity in terms of socially desirable characteristics for males and females (Bem, 1974; Berzins, Welling, & Wetter, 1978; Heilbrun, 1976; Spence, Helmreich, & Stapp, 1975). An individual is considered sex-typed (masculine or feminine) to the extent that the individual endorses either of the sex-stereotyped characteristics to the relative exclusion of the other. The androgynous individual is one who endorses relatively equal proportions of both masculine and feminine characteristics. Within this latter category, a distinction is made between an individual who scores high in both masculinity and femininity (Androgynous) and one who scores low in both (Undifferentiated).

Bem (1972, 1974, 1975) questions the traditional assumption that it is the sex-typed individual who typifies mental health. She theorizes that the androgynous individual is psychologically healthier for he or she has at his or her disposal a larger and more diverse number of behaviors which enables the individual to engage in situationally effective behaviors in a more adaptable fashion. By contrast,

the highly sex-typed male or female is motivated to maintain a culturally sex-stereotyped self-image and for them cross-sex behavior may be problematic even when it would be more appropriate for that particular situation.

Behavioral Validation

Bem (1975) has found some behavioral support for her hypotheses in regard to androgynous subjects and males. Feminine-typed females did not perform well even on some tasks designed to evoke feminine expressiveness and affection.

Bem also examined the behavior of college students in two situations: The first was a standard conformity deception paradigm intended to evoke independence (stereotypically masculine attributed); and the second involved an opportunity to play with a kitten intended to evoke nurturance and expressiveness (stereotypically feminine attributes). The students had been divided into the following four groups by means of their scores on the Bem Sex-Role Inventory (BSRI): Masculine (high masculine-low feminine); Feminine (high feminine-low masculine); Androgynous (high masculine-high feminine) and Undifferentiated (low masculine-low feminine). Androgynous subjects of both sexes exhibited the hypothesized behaviors; i.e., independence when under pressure to conform and nurturance when given the opportunity to play with the kitten. The "masculine" males displayed independence but not nurturance and the "feminine" males displayed nurturance but not independence. However, the pattern for the females was less clear. The "masculine" females did display independence as predicated but also exhibited a moderate degree of playfulness and nurturance,

falling between the "androgynous" females and the "feminine" females on this dimension. The "feminine" females failed to show independence as predicated but also failed to exhibit nurturance toward the kitten.

In another study, Bem (1975) examined the relationship between sex-roles and expressive behavior. Expressive behavior was assessed by rating the interaction of subjects with a human infant. As expected, androgynous and feminine-typed males were significantly more responsive than masculine-typed males. However, the female sex-role categories did not differentiate on the responsiveness score. In a second study, responsiveness was estimated by observer ratings of the subjects' verbal and nonverbal responsiveness to a same-sex partner's description of his or her loneliness, isolation, and homesickness. (The partner was always a confederate of the experimenter.) As hypothesized, androgynous and feminine-typed males were again significantly more responsive than the masculine-typed males. And, in this study the hypothesis was also confirmed for the females, with masculine-typed females rated as less responsive than androgynous and feminine-typed females.

In a third study, Bem and Lenney (1976) investigated the relationship between sex-role type and willingness to engage in cross-sex behaviors. Subjects were required to select and perform one activity from each of 30 pairs of tasks. The pairs were: (1) a neutral and a masculine activity, (2) a neutral and a feminine activity, and (3) a masculine and a feminine activity. In addition, small cash payments were given for performing the tasks and arranged such that sex-inappropriate choices always paid more. As predicated, for each gender, the sex-typed subjects were significantly more stereotyped in

their activity choices than the androgynous or sex-reversed subjects despite the fact that the sex-appropriate tasks paid less money.

This series of behavioral validation studies by Bem and her colleagues appears to confirm her hypothesis about behavioral flexibility in terms of males but the results are not as distinct for females.

Personality Correlates to Sex-Role Mode

Several researchers have explored the relationship between sex-role categorization and measures of self-esteem. Unfortunately, different scales have been used to measure the same criterion variable, but all three studies found similar results.

Spence et al. (1975) used the Personality Attributes Questionnaire (another instrument for sex-role assessment based on similar theoretical assumptions as the BSRI) to assess the relationship of sex-role categorization and self-esteem scores and report that androgynous males and females report the highest levels of self-esteem, and the undifferentiated subjects report the lowest levels. The sex-typed subjects were intermediate between them with the feminine-typed person of each gender being slightly lower than the masculine-typed subjects. Wetter (1975) using the ANDRO scale (another measure for sex-role dimensions) found that, for each gender, the masculine-typed and androgynous subjects did not differ from one another but reported significantly higher self-esteem than the feminine-typed and undifferentiated subjects. The latter two groups did not differ from each other. Bem (1977) using the BSRI obtained results identical to Wetter. All three studies were conducted with college students as subjects.

Spence and Helmreich (1978) conducted a parallel analysis with a sample of high school-aged students and found an exact duplication of the college student results. That is, within each gender, the order of mean self-esteem scores from highest to lowest was Androgynous, Masculine-typed, Feminine-typed and Undifferentiated.

Integration of Changes in Sex-Role Definition
with Changes in Developmental Tasks

Feminine Sex-Typing--An Unclear Dimension

It is evident from a cursory review of the literature on the developmental process of psychological sexual differentiation that the social-cultural milieu affords the female in the American culture less support in the assimilation of her sex-role. The fact that there are cultural expectations about how a male or a female "ought" to behave is clear but for the female it appears that the parameters of the expectations are less distinct. Whether one espouses the psycho-analytic identification theory of sexual differentiation or the social learning theory or the cognitive developmental theory, there are some inherent difficulties for the female. Modeling is certainly operative within each of the three theories and the models themselves appear to be less definite about what characteristics and behaviors should be differentially instilled. Thus, researchers (Lansky, 1967; Fling & Manosevitz, 1972) have demonstrated that parents are more definite about what they consider to be sex-appropriate and inappropriate for boys.

The previously cited study by Mussen and Rutherford (1963) indicates that the feminization of girls involves a greater number of, and more complex, determinants than the masculinization of boys. The authors hypothesize that this is true because the male role is more highly valued in the middle class American culture and because behaviors considered sex-appropriate for males are more clear cut and well-defined.

Hypothesizing that social reward for conformity should tend to strengthen interpersonal habits, whereas social punishment for non-conformity should have a weakening effect, Heilbrun (1964) explored the relationship between a measure of masculinity-femininity to perceived social role consistency. (Social role consistency (RC) has been empirically related to level of adjustment in previous research; i.e., high RC has been related to better psychological adjustments.) Heilbrun predicted that the more masculine boys would show higher RC than the less masculine boys since there was pervasive expectancies in our culture that men should display masculine attributes and these would be reinforced by his social environment and be strengthened. On the other hand, the low-masculine boy's behavior may be subjected to greater social censure and possibly pressure toward the modification of his behavior. He found a significant difference in the RC measures in the expected direction for this group of adolescent boys. In his female population, it was found that both high-feminine and low-feminine girls perceived themselves as more stable in their interpersonal behaviors than those falling into an intermediate group. The author speculates that the intermediate group

is lower in RC because girls who fulfill neither the traditional feminine role nor a more masculine role might not provide social behavior patterns of sufficient stability to be systematically reinforced. He offers no speculation about why a cross-sexed behavior pattern in girls should result in high role consistency except to point out that: Not only is a female permitted considerably more freedom as a child to engage in cross-sex behaviors but that the feminine role itself is undergoing revision; therefore, a female adolescent would be exposed to conflicting social rewards and punishments. (Neither does he offer a rationale for dividing the boys into a high and low group and the girls into three groups.)

Another piece of evidence can be found in the previously cited longitudinal research by Block (1973). The data presented suggest that the highly sex-appropriate, highly socialized parents produced competent well adjusted males but somewhat dissatisfied, indecisive, passive females despite the fact that these women typified the traditional concept of femininity. On the other hand, the low sex-appropriate, highly socialized parents appeared to offer a wider range of behavioral and attitudinal options and produced both men and women who were competent and comfortable with their sex-roles.

It appears that boys growing up in the American culture not only have more distinct and easily discriminable cues for sex-appropriate and inappropriate behavior but those "masculine" behaviors and attributes that he ought to display (such as competence and independence) are valued by society and he is rewarded for them. On the other hand, a girl is allowed more latitude in sex-appropriate and inappropriate behaviors and is often exposed to conflicting social rewards and

punishments for her behaviors and attitudes. Moreover, even when she endorses the "feminine" behaviors and attitudes that she ought to display, this does not necessarily lead to a feeling of adequacy or are they necessarily valued and rewarded by her social environment.

The Enigma of Femininity

Although females may not be consistently reinforced or punished for exhibiting "feminine" behaviors and attitudes and despite the fact that she has more latitude in engaging in cross-sex behaviors, there is a very consistent concensus in our society about what characteristics are most desirable for each or that would describe an "ideal" or "average" man or woman.

Rosenkrantz, Vogel, Bee, Broverman, and Broverman (1968) administered sex role questionnaires with 130 bipolar items to college students who were asked to rate the typical adult male and the typical adult female on each item. The student populations came from five different settings which differed with respect to religion and social class. There were no differences across the student subgroups; the average adult man responses (masculinity) and the mean adult woman responses given by male subjects and female subjects were nearly perfectly correlated. Two different samples of students were asked to indicate the pole of each item that they considered to be the more socially desirable behavior for the population at large. Twenty-nine male-valued items and 12 female-valued items were chosen by a majority of each sample regardless of the sex of the subject. Additional samples of men and women were given the questionnaires with instructions to indicate that point on each item scale they considred most desirable

for an adult, sex unspecified. The same 29 stereotypic items were closer to the masculine pole. It appears that not only are existing stereotypic differences between men and women approved of by a large segment of society, but there seems to be some indication that masculine characteristics are more highly valued than are feminine characteristics.

Broverman, Broverman, Clarkson, Rosenkrantz, and Vogel (1970) administered the same questionnaire to a sample of practicing mental health clinicians, of both sexes, with one of three sets of instructions: (1) to describe a mature, healthy, socially competent adult man; (2) a mature, healthy, socially competent adult woman; and (3) a healthy, mature, socially competent adult person. There was high agreement, within each set of instructions, about which pole reflected the more healthy behavior. The clinicians' ratings of a healthy adult and a healthy man did not differ from each other. However, a significant difference was found between the ratings of the healthy adult and the healthy woman. The authors state:

Acceptance of an adjustment notion of health, then, places women in the conflictual position of having to decide whether to exhibit those positive characteristics considered desirable for men and adults, and thus have their "femininity" questioned, that is, be deviant in terms of being a woman; or to behave in the prescribed feminine manner, accept second-class adult status, and possibly live a lie to boot. (p. 6)

Horner (1972) focused our attention on this differential valuation with her research on the incidence of "fear of success" found in college women. Horner conceptualized the Motive to Avoid Success, within the framework of an expectancy value theory of motivation and described it as "a latent, stable personality disposition acquired early in life. . . .

disposition to become anxious about achieving success" (p. 159). She proposed that women, as a result of their sex-role training, have the belief that successful achievement can only be accomplished at the price of a loss of femininity and social rejection. Her procedure involves giving subjects a verbal cue describing a woman competing in a mix-sex situation. The cue was: "After first term finals, Anne finds herself at the top of her medical school class." The subjects were required to respond in a manner similar to responses elicited with Thematic Apperception Tests and the protocols were scored according to the presence or absence of negative imagery related to the success. Horner reported negative imagery in 65-89% of the women and 9% of the men. (The male cue substituted John for Anne.)

Hoffman (1974) replicated Horner's research and introduced three variations in the story cue: In one, the setting was changed to child psychology, a less masculine academic area; in another, the achievement was communicated privately rather than publicly; and finally, the competitive aspect was minimized. None of the variations diminished fear of success for females but 77% of the males also produced fear of success protocols. The most common theme for females was fear of affiliative loss as in Horner's study; for males, it was questioning the value of the achievement. Tresemer (1976) reviewed 46 studies involving fear of success and found no consistent tendencies for females to report more fear of success than males. Weston and Mednick (1970) compared black and white college women and two class levels. Social class differences were not found but black women reported considerably less fear of success themes.

Zuckerman and Wheeler (1975) reviewed 16 studies and found that nine showed more fear of success imagery in women while seven reported more such imagery in men. It is difficult to assess these data because of differences in procedures and measuring devices but "fear of success" does not appear to be a stable personality disposition but does seem to be related to sex-role standards and the anticipated consequences of deviating from them, at least for women.

Wiggins and Holzmuller (1978) hypothesized that the flexibility associated with Bem's definition of psychological androgyny is a more general personality characteristic that subsumes sex role stereotypes; i.e., the flexibility of androgynous persons may be part of a broader pattern of flexibility that is expressed in all or most dimensions of interpersonal behavior. By this reasoning, the androgynous person's profile of interpersonal variables would be relatively flat, and the stereotyped person's profile would be both positively and negatively spiked on variables that are highly sex stereotyped. This hypothesis of a flat profile for the androgynous person received considerable support for male subjects but was strikingly disconfirmed for female subjects. The index of profile variability was highest for androgynous females and a mirror image of the pattern for stereotyped females. The authors suggest that the greater profile variability of androgynous females may reflect a more differentiated self-perception on the part of androgynous females.

Jones, O'C. Chernovetz, and Hansson (1978) conducted a series of studies to test hypotheses derived from Bem's theory of androgyny with respect to conventionality, adaptability, social competence, and adjustment. The subjects were eight separate samples of college psychology students.

In no case were androgynous males found to be significantly more adaptive, flexible, or competent than masculine males, across a wide variety of personality, adjustment, and intellectual variables. The feminine-typed male subjects were less secure and flexible, had lower self-esteem, were more sensitive to criticism and had more problems with alcohol in comparison to the masculine-typed males. Androgynous males scored significantly lower on creativity than the feminine-typed males, whereas, there was no difference between the latter and the masculine-typed males on creativity. Thus, with the exception of intellectual functioning, masculine-typed males were described as more competent and confident over a wide range of variables, whereas the less traditionally sex-typed males were generally more limited and restricted, less effective and more vulnerable and less secure. A similar pattern emerged for the females. The more masculine in orientation, the more adaptive, competent, and secure the female subject was; with the masculine-typed females scoring in the most desirable direction. The authors propose that what is being devalued in society is perhaps not female gender but, rather, feminine behaviors. And perhaps, they suggested,

that the important issue becomes not whether one has internalized the traits and behaviors appropriate to one's gender but the extent to which one has assimilated the tendencies most highly valued by society. . . . In a society that prefers the agentic role, it becomes reasonable to conclude that individuals high in agentic tendencies will not only be more successful within the context of such a society's values, but such persons will feel more confident due to a history of differential application of social rewards. (p. 311)

Sexual Identity - A Facet of Self-Concept

The bulk of the research on the development of sexual identity appears to assume that the ultimate goal is the achievement of masculinity or femininity or androgyny. However, there is some evidence in the developmental research conducted by Baumrind (1971) and Block (1973) which indicates that the parents of the most competent, well-adjusted children who were also comfortable with their sexuality directed their efforts not at instilling a particular sex-role style but at providing an environment that facilitated the development of self-identity.

Block (1973) conceives of sexual identity within the framework of the larger developmental tasks of ego and cognitive development. She states, "sexual identity means, or will mean, the earning of a sense of self in which there is a recognition of gender secure enough to permit the individual to manifest human qualities our society, until now has labeled as unmanly or unwomanly" (p. 512).

Kelly (Maher (Ed.) 1969) points out that man's thought and behavior is not the residue of biographical incidents, nor are they projected facsimilies of reality. He theorizes that each man constructs guidelines that given behavior its directionality--reference axes are devised by each man for establishing a personal orientation toward the various events he encounters. He states, "With such personal constructs a man can make his entrance into the world of reality by acting with initiative and ingenuity. Failing to erect them he can only repeat concretely what has been 'reinforced,' in the circular manner that psychological journals describe" (p. 37). If we can accept Kohlberg's theory that sex-typing is dependent upon certain aspects of cognitive

growth and development, and that each individual develops his or her own reference axis or construct of sex-role, it seems logical to assume that the individual may revise, reverse, and add new connotations or attributes to the concept of self as new reference axes are added upon which to project the events that are encountered in the environment.

In addition, it seems reasonable to conjecture that, for the bulk of the population, an individual's gender and all the nuances associated with it, would be "figure" with changing degrees of ascendancy at different critical periods in life. Most of the recent research generated by Bem's concept of "androgyny" has been conducted with the college population as subjects. This is a period of life when most young adults are not only in the process of establishing their vocational identity but also exploring the possibilities of forming relatively enduring sexual relationships. Perhaps it is a period in life, more than any other, in which individuals tend to define themselves in terms of "femininity" or "masculinity." Thus, the fact that most of the subjects fall into a particular phase of the life cycle may have some effect on the results derived from research on sex-role concept.

Sex-Role and Aging

Although there are a number of useful references in the literature that relate to personality changes in adulthood and old age, the findings are usually suggestive or descriptive and often limited to observations drawn from an institutionalized older population or limited to one gender and not easily generalizable. Kelly (1955) as part of his investigation on the consistency of adult personality, retested 176

males and 192 females who were part of another study some 20 years earlier. The two instruments used to assess personality variables were the Bernreuter Personality Inventory and Strong's Vocational Interest Inventory. Very few significant changes were noted but there was a small but statistically significant shift toward greater self-confidence in women and a small but significant shift in the masculine direction for both men and women on the Masculinity-Femininity scale and the Strong Vocational Interest Inventory (nonvocational interest scales).

Neugarten and Gutmann (1958) explored the relationship between role image and personality in men and women ages 40-70 years through the use of the Thematic Apperception Test (TAT). Although the data represented affective connotations of role behavior rather than objective role descriptions, the authors present findings that imply that there are personality differences that are fairly general to the age groups (40-54; 55-70). For example, the younger group of women produced protocols that centered around enforcing nurturant views on events, guaranteeing benevolent outcomes to the young; in the older group, although they still acknowledged the relevance of nurturance and generativity, they also allow themselves to be more self-assertive and domineering. The younger group of men produced themes about struggles with problems relating to assertion, guilt, nurturance, and affiliativeness-conflicts he attempts to solve in terms of complex role patterns that integrate the various elements. The older men reached a solution through relinquishing the assertive role elements and abandoned any attempts at active manipulation of the environment. The

authors theorize, "For example, women, as they age, seem to become more tolerant of their own aggressive, egocentric impulses; whereas men, as they age, of their own nurturant and affiliative impulses" (p. 89).

Reichard, Livson, and Petersen (1962) utilized interview data to examine changes in personality, self-concept, and personal adjustment during the period from the middle age to old age in a population of eighty-seven men. They conclude: "The way that a man grows old depends to a degree on his personality--on what his psychological drives are and his ability to satisfy them in old age. Personality has an important effect on whether a man grows old successfully and how he goes about it" (p. 170). They were able to identify and describe three personality types among men who adjusted well to aging and two personality types who adjusted poorly. The three well-adjusted types were: (1) Mature men who were relatively free of neurotic conflict, were able to accept themselves realistically and found genuine satisfaction in activities and personal relationships. (2) Rocking-chair men characterized by their general passivity. They welcomed the opportunity to be free of responsibility and to indulge their passive needs in old age. (3) Armored men who maintained a highly developed but smoothly functioning system of defenses against anxiety about growing old by keeping active. The two poorly adjusted types were: (1) Angry men who were bitter over having failed to achieve their goals earlier in life. They blamed others for their disappointments and were unable to reconcile themselves to growing old. (2) The self-haters blamed themselves for their misfortunes. Growing old underscored their feelings of inadequacy and worthlessness and these men tended to be depressed.

There have been few studies in which a systematic set of variables has been used to study the organization of personality among aged persons. However, there seems to be suggestive evidence that disengagement from central life roles during senescence may be basically different for men and women. Kastenbaum (1964) states:

In general we might say that a woman's life long training to a role that is primarily socio-emotional but nevertheless includes adaptive skills leaves her more diffusely adaptable than a man's working career leaves him, because he does not automatically need integrative skills. . . . The disposition toward the instrumental role can remain after retirement, but the specific skills lose relevance. (p. 68)

Perhaps in senescence, the disjunction for women is far less acute than it is for men. A man has no clearcut roles upon retirement, no special place to go to perform it and even if he plays an instrumental role relative to his wife, it loses its public label and utility.

Hypotheses Concerning the Relationships Between Self-Concept and Sex-Role Style and Their Interaction With Gender and Age

According to Bem's theory of androgyny, an androgynous person has at his or her disposal a larger and more diverse number of socially approved behaviors which enables the individual to engage the environment in a more adaptable fashion. A logical outgrowth is an increase in the probability of reinforcement, either self-generated or externally delivered, which should result in a high evaluation of self and lead to higher self-esteem. However, it has also been shown that the American culture consistently values agentic or instrumental behaviors associated with "masculinity" (Broverman et al., 1970; Rosenkrantz et al., 1968) and at least one study (Jones et al., 1978) indicates that competence and adaptability are largely accounted for by "masculinity."

It is hypothesized that a Feminine-typed female consistently scores lower in self-esteem relative to Androgynous and Masculine-typed individuals, not only because Feminine-typed behaviors have a lesser potential for leading to social reinforcements in our society, but also because she is not secure in her self-identity. That is, there is a consensus in our culture about the attributes a female ought to possess but her social environment does not necessarily reinforce these behaviors when they are displayed. In addition, she may be punished for displaying those behaviors that are valued by society and cast doubt on the very identity she is trying to establish. This conflictual situation is not likely to lead to high self-esteem. Granted this, it would be reasonable to hypothesize that older women, who should presumably have resolved the issue of sexual identity, may describe themselves in a feminine fashion and maintain a fairly high self-esteem.

Erikson's (1950, 1959) theory of development represents a systematic formulation of the effects of maturation, experience, and social interaction on personality organization. He proposes that the establishment of identity involves a feeling of continuity with past and future, an assimilation of the rapid physical changes, an adoption of sexual roles, and a formulation of a dominant social role. These same factors that Erikson considers crucial to identity formation in the adolescent seem, theoretically, to confront the aged population and may pose the task of preserving a stable self-image despite the disruption in life patterns. For aging poses the problem of adjusting to physical and mental changes in roles that have been central to one's view of "self" throughout

life, little social instigation to maintain sexual roles and a relinquishing of one's vocational identity, particularly for the males in our society.

This coupled with the fact that there is some indication that men tend to decrease their agentic qualities and take on more communal ones would lead to the hypothesis that men after retirement would endorse more equal numbers of masculine and feminine characteristics and most probably score low in both.

Kalish (1975) introduces the concept of "age role" in terms of an individual's age group "calling forth responses and expectations different from those they have encountered" (p. 50). Most people are effectively socialized to the particular age roles prescribed for their age group by society. Hence, it might be reasonable to assume that individuals of any age group share certain qualities, feelings, experiences, roles and changes in roles with their age cohorts. It is also evident that many age role expectations of our culture are imposed along sexual lines and consequently, behaviors are differentially reinforced. The general hypothesis to be explored is: The nature of the developmental task engaged in (age role) at critical periods in life, particularly during those periods of large disruptive changes, such as adolescence and senescence, interacts with the individual's gender. This interaction will be reflected in the individual's sex-role identity and its relationship to self-esteem and other personality variables.

CHAPTER II
EXPERIMENTAL ANALYSIS OF THE INTERACTION BETWEEN CHRONOLOGICAL AGE
AND GENDER AND ITS EFFECT ON SEX-ROLE IDENTITY

This study explores the hypothesis that an individual's sex-role identity, unlike biological gender, is subject to the influence of cultural norms; and the effect may not be equivalent for men and women due to the presence of social forces that differentiate males and females along particular psychological dimensions. It is further hypothesized that the nature of this effect will differ contingent on the character of the developmental task engaged in, particularly during certain critical periods of life.

Method

Males and females within four age groups were administered paper and pencil questionnaires designed to measure a variety of personality variables. In addition to the usual college population, an attempt was made to survey individuals in the following age groups: 25-49 years of age; 50-60 years of age; and persons older than 60 years of age. All subjects were living in their own households and functioning within the community. The clinical and institutionalized populations were deliberately excluded. Anonymity was guaranteed by a strict coding scheme. The following questionnaires were administered: Bem Sex Role Inventory, Texas Social Behavior Inventory, I-E Scale, a measure of Role Consistency, along with a questionnaire designed to elicit demographic information.

Subjects

The College Population

The subjects in the 18-24 year old group were male and female college students enrolled in the Introductory Psychology course at the University of Florida in the Spring and Fall quarters of 1977. This population was available to participate in various psychological experiments as part of their course requirement. Fifty-eight subjects (40 females and 18 males) took part in the experiment in the Spring quarter. In the Fall quarter, 22 male subjects were recruited to yield an equal number of males and females (N=80; 40 females, 40 males). The subjects were administered the packet of questionnaires in two evening group sessions. Instructions were delivered to the group as a whole at the beginning of the sessions and the experimenter remained available for any questions that might arise. This college sample is analogous to the criterion samples utilized by Bem (1974) for the Bem Sex Role Inventory; by Helmreich et al. (1974) for the Texas Social Behavior Inventory; and by Rotter (1966) for the I-E Scale.

The Older Age Groups

The college students participate in psychological experiments for course credit and are relatively homogeneous not only in motivation but on many other relevant characteristics. Once an experimenter leaves the classroom in search of an analogous adult population, it is never certain, in what manner and to what extent the sample will be selective by virtue of its being composed of individuals who volunteer to participate in a psychological experiment. The intent was to study a

sample of adults resembling the college population and fairly representative of the general population. Data were collected over a span of nine months, from June, 1977, to February, 1978. Organized groups were reluctant to divulge their membership and when permission was obtained, the members were not willing to contribute their time during the meeting. Therefore, instructions were given, consent forms signed, and the volunteers were permitted to complete the questionnaires at home. Thirty-seven individuals provided data in this manner. The "snow-balling" technique proved to be a more efficient means for collecting data. Subjects themselves provided other subjects who met the criteria for inclusion in this study and the questionnaires were individually administered. The nonstudent samples consisted of 77 subjects, 25-49 years of age (39 females and 38 males); 55 subjects, 50-60 years of age (30 females and 25 males); and 62 subjects, over 60 years of age (32 females and 30 males). Demographic data are presented in Tables 1, 2, and 3.

Table 1
Marital Status

Marital Status	25-49 Years		50-60 Years		Over 60 Years	
	Males	Females	Males	Females	Males	Females
Married	26	21	23	23	21	18
Single	3	4			1	4
Divorced	5	7		2		3
Widowed				1	3	5
Separated						
Remarried	4	5	2	4	5	2
Other		1*				
TOTALS	38	38**	25	30	30	32

* Open Marriage

**One individual failed to complete this questionnaire

Table 2
Educational Level

Education	25-49 Years		50-60 Years		Over 60 Years	
	Males	Females	Males	Females	Males	Females
College Plus	25	18	13	11	20	18
College	4	9	3	7	5	8
Partial College	8	8	3	7	1	2
High School	1	2	6	5	2	4
Partial High School		1			2	
TOTALS	38	38	25	30	30	32

Table 3
Work Status of Women

	25-49 Years	50-60 Years	Over 60 Years
Full-Time Housewife	11	16	14
Working Full-Time	21	9	1
Working Part-Time	5	5	2
TOTALS	37*	30	17**

* 2 women failed to complete this portion of the questionnaire

** 15 women over 60 years of age had been employed full-time until retirement and were now unwilling to categorize themselves as Full-Time Housewives

Twenty-one males over 60 years of age were retired, 8 men were working full time and 1 male was retired but working part time.

This is evidently a very well educated sample, with 13% of the non-student population receiving formal training beyond a standard college education. An attempt to deliberately sample a population of less educated individuals was abandoned because professionals involved with

Older Americans in various programs advised the experimenter that these questionnaires designed for the college students might intimidate their members. In general, individuals with some college experience were more likely to serve as volunteers in this psychological experiment. Five women over 60 years of age volunteered under fortuitous circumstances but were not able to complete the task.

Assessment Instruments

Demographic Data Sheet

A questionnaire designed to elicit relevant demographic information. The data have been summarized in the previous section.

Bem Sex-Role Inventory (BSRI) (Bem, 1974)

The BSRI treats masculinity and femininity as two independent dimensions. This makes it possible to characterize individuals as Masculine, Feminine or Androgynous as a function of the difference between his or her endorsement of masculine or feminine personality characteristics. Bem's scale contains 60 personality characteristics: 20 masculine-typed items, 20 feminine-typed items, and 20 items that are neutral with regard to sex. In the development of the scale, the masculine and feminine characteristics were so designated on the basis of sex-typed social desirability. That is, a characteristic was selected for the masculine category if it was judged to be more desirable for a man than a woman in our society; and feminine if it was judged to be more desirable for a woman than a man.

Bem conceptualizes a sex-typed individual, whether masculine or feminine, as one who has internalized society's sex-typed standards of desirable behaviors for men or women and endorses one group of sex-stereotyped characteristics to the relative exclusion of the other on a self-descriptive inventory such as the BSRI. The androgynous individual, on the other hand, endorses relatively equal numbers of masculine and feminine items. Bem hypothesizes that an androgynous self-concept might permit an individual to engage in both "masculine" and "feminine" behaviors depending on the situational appropriateness of the behavior. Thus, her concept of androgyny denotes a flexibility which enables an individual to respond to shifting situational demands and in turn leads to greater social competence.

Spence et al. (1975) and Strahan (1975) extended Bem's concept of androgyny by proposing that the absolute number of response options covaries with sex-role diversity to enhance behavioral flexibility. That is, an individual whose self-definition restricts both masculinity and femininity (low-masculine--low-feminine) would have fewer behavioral alternatives and thus be at an adjustment disadvantaged, particularly in comparison to an androgynous individual (high-masculine--high-feminine). In response to this proposal, Bem (1977) amended her concept to endorse Spence et al.'s designation of "Undifferentiated" individuals, who due to a low degree of both masculine and feminine characteristics is seen as less adaptive than androgynous individuals.

Normative data for the BSRI were obtained from 444 male and 279 female Introductory Psychology students at Stanford University and 117 male and 77 female paid volunteers at Foothill Junior College. The

internal consistency scores (coefficient alpha) were found to be highly reliable, both in the Stanford sample (Masculinity $\alpha = .86$; Femininity $\alpha = .80$; Androgyny $\alpha = .85$) and in the Foothill sample (Masculinity $\alpha = .86$; Femininity $\alpha = .82$; Androgyny $\alpha = .86$). Masculinity (Stanford sample $r = .42$ for males and $.19$ for females; Foothill sample $r = .23$ for males and $.19$ for females) and Femininity (Stanford sample $r = .28$ for males and $.26$ for females; Foothill sample $r = .15$ for males and $.15$ for females) correlated with Social Desirability. In contrast, the much lower correlations between Androgyny and Social Desirability (Stanford sample $r = .12$ for males and $.03$ for females; Foothill sample $r = .07$ for males and $.06$ for females) suggest that the Androgyny score is not a measure of a general tendency to respond in a socially desirable direction. The BSRI was administered for a second time, four weeks later, to 28 males and 28 females from the Stanford normative sample. Test-retest product correlations were: $r = .90$ for Masculinity; $r = .90$ for Femininity; and $r = .93$ for Androgyny.

Texas Social Behavior Inventory (TSRI) (Helmreich et al., 1974)

The TSBI is a 32-item multiple choice scale designed to assess individual perceptions of social competence and self-esteem. Subjects are given five alternative choices (Not at all, Not very, Slightly, Fairly and Very characteristic of me) in response to declarative statements describing behaviors associated with either high or low social competence. Each item is scored from 0 associated with low social competence to 4 the response characteristic of high self-esteem. The total score for each subject is the sum of all items with a possible range of 0 to 128.

The TSBI was standardized on male and female students in Introductory Psychology at the University of Texas at Austin. The test developers report no significant differences between the sexes on total scale scores. Test-retest reliability is reported as $r = .94$ for males and $r = .93$ for females.

An oblique four factor rotation was computed for males and females. Helmreich et al. (1974) reported the following factors: 72.3% of the variance for males and 72.8% for females was found to be associated with the first factor, composed primarily of items dealing with confidence. The second factor for both sexes was weighted most heavily with items concerned with dominance and the third with social competence. A fourth factor was related to social withdrawal for males and relations with authority figures for females.

The authors report a strong correlation between the TSBI and the California Personality Inventory (another measure of self-esteem) $r = .50$ ($p < .001$) for males and $r = .52$ ($p < .001$) for females. The TSBI was not significantly related to intelligence as measured by the Scholastic Aptitude Test. For males, the TSBI was orthogonal to the Marlow-Crowne Social Desirability Scale ($r = .09$, not significant), however, a significant correlation was found for females ($r = .32$, $p < .01$). The authors suggest that a definite though modest relationship exists between the expression of socially desirable characteristics and self-reports of social competence in females.

Further, the authors report a strong relationship of the TSBI to the Personal Attributes Questionnaire (Spence et al., 1974), a measure of sex-role identity. For males, the correlation ($r = .54$, $p < .001$)

indicates that the more stereotypically masculine a male rates himself, the higher his self-esteem. The correlation for females ($r = .59$, $p < .001$) is in the same direction and stronger, suggesting that the more a woman attributes masculine characteristics to herself, the higher her self-esteem.

Locus of Control (I-E Scale) (Rotter, 1966)

Locus of control is a construct generated within Rotter's social learning theory which refers to the extent to which an individual perceives events in his life as being a consequence of his own actions and therefore under his control. The I-E Scale is a forced-choice test and contains 23 items plus 6 filler items intended to make somewhat more ambiguous the purpose of the test. All the critical items are concerned with the subject's expectations about how reinforcement is controlled and the test is intended to measure generalized expectancy. It is an additive scale and the subject's score is the total number of external choices.

The I-E Scale was standardized on a large number of Elementary Psychology students at Ohio State University. Test-retest reliability over one and two month periods range from $r = .49$ to $r = .83$. The internal consistency estimates are relatively stable, with correlations ranging from $r = .65$ to $r = .79$. Correlations with the Marlow-Crowne Social Desirability Scale range from $r = .12$ to $r = -.41$.

An estimated 600-650 articles have been published dealing with some aspect of the internal-external control dimension. In general the studies lend support to the construct of internal-external control by forming clusters of personality characteristics: The externally

controlled individual is relatively more anxious, aggressive, dogmatic, less trustful, and more suspicious of others because he perceives himself as having very little control over his environment. The internally controlled individual is more sociable, achievement oriented, and more trustful of others because he thinks of himself as being able to control his environment. One interesting finding (Hersch and Scheibe, 1967) was that internals were a more homogeneous group and consistently linked to indices of social adjustment and personal achievement; while the externals were more diversified psychologically.

Role Consistency (Block, 1961)

The core meaning of Erickson's concept of "ego identity" is expressed in his statement that "the sense of ego identity is the (individual's) accrued confidence that (his) inner sameness and continuity are matched by the sameness and continuity of (his) meaning for others. . . ." (p. 228). Three elements are presented in this definition. First, an individual must perceive himself as having "inner sameness and continuity" (i.e., he must, over time, presume himself to be essentially the same person he has been). Second, people in his social environment must perceive a "sameness and continuity" in the individual. Third, the individual must have "accrued confidence" in a correspondence between the two lines of continuity; i.e., the person he sees himself as being must be validated by feedback from his interpersonal experiences.

Block (1961) focuses on one aspect of ego identity, the dimension he labels role variability. The meaning of role variability is clarified by describing its extremes. At one end of the dimension is "role

diffusion," where an individual has no internal reference which can affirm his continuity and self-integrity. This kind of person is highly variable in his behaviors and is plagued by self-doubts. At the other extreme, Block speaks of "role rigidity," where an individual behaves uniformly in all situations, disregarding the different responsibilities imposed by different circumstances. Block states: "Somewhere in between, presumably, a proper balance can be struck in the struggle both for identity and the capacity for intimacy" (p. 392).

In order to explore the problem of the amount of personal consistency necessary for psychological adjustment, Block (1952) studied a single subject intensively. She was asked to describe systematically her interactions with a set of "relevant others." When these descriptions were factor analyzed, it was observed that the factor dimensions appeared to order and to summarize the several kinds of roles this subject manifested. He states: "Although seeing herself as changing from relationship to relationship, a general factor of some consequence proved to underlie all her interactions" (p. 285). From this frame of reference, he hypothesized that "the amount of interpersonal consistency is curvilinearly related to the degree of maladjustment, as defined independently" (p. 285).

The Role Consistency measure is a direct translation into psychometric form of Erikson's first criterion of ego identity. Subjects are asked to rank order a set of 20 self-descriptive adjectives from most to least characteristic of themselves for each of eight interpersonal situations in which they imagine themselves involved. The Role Consistency measure (Coefficient of concordance) is a type of multiple rank-order correlation

and may range from .00 to 1.00, with higher values indicating greater perceived consistency of behavior over interpersonal situations

Forty-one college students in a class on factor analysis collected data on their Role Consistency measure plus a Psychoneuroticism scale developed by the author (Block, 1961). The product-moment correlation between the index of interpersonal consistency (role consistency) and scores on the Psychoneuroticism scale was $r = .52$, $p < .001$. Individuals who tended to see themselves as varying from interaction to interaction were also more maladjusted as measured by the Psychoneuroticism scale. The expectation that individuals with too little role variability would also prove to have weaknesses in their personality makeup was not confirmed.

To date, experimental results indicate that high Role Consistency is positively related to psychological health. In a study of 50 Vassar alumnae some 20 years after graduation, Block (1961) found Role Consistency correlated ($r = .29$, $p < .05$) with a consensus rating of degree of adjustment. Women with high Role Consistency scores were relatively "indulgent and forgiving, protective of those close to her, sympathetic, efficient, adequate in her sexual role, turned to for advice and reassurance, facially and gesturally expressive, and considerate"; while women with low Role Consistency scores were described as "irritable and overreactive, talkative, ostentatious, and sarcastic" (p. 395). Meltzer (1957) found that a large self-ideal self-discrepancy--a reasonable measure of self-recognized maladjustment--was significantly related to extreme role variability (cited in Block, 1961). Cartwright (1957, 1961) found that Role Consistency increased with psychotherapy

independently rated as successful. Heilbrun and Lair (1964) found that psychiatric patients with high Role Consistency scores were rated as significantly better in both their ability to communicate and to socialize in ward interactions than patients with low Role Consistency scores.

Theoretical Relationships Between Assessment Instruments
and Derivation of Specific Hypotheses

Traditional formulations of sex-typing were predicated on the assumption that the adoption of sex-roles sanctioned by society for one's gender is not only desirable but that deviation from the cultural norm is maladaptive. Recent approaches to the assessment of masculinity and femininity consider these dimensions to be independent and orthogonal. Within this model, Bem (1974) suggests that an androgynous individual, one who endorses a relatively balanced and high number of sex-typed characteristics, may be more flexible, adaptive and psychologically healthier. Many investigators have designed research to relate current measures of sex-role orientation to indices of psychological well-being.

This study attempts to integrate sex-role identity within the larger framework of self-identity. Under this theoretical framework, sex-role identity is viewed as one aspect of "self-identity," and will be related to three other personality variables that have been associated with "self-identity." These particular psychological functions appear to have a logical theoretical relationship to each other and to good psychological adjustment: (1) Unity--a sense of inner sameness and continuity (Role Consistency measure); (2) A sense of

inner competence, which is here translated into a belief that events are contingent on one's behavior (measure of Locus of Control); and (3) A sense of personal importance or self-esteem (Texas Social Behavior Inventory).

According to Erikson (1959), identity formation involves a feeling of continuity with past and future, an assimilation of the rapid physical changes an adoption of sexual roles, and a formulation of a dominant social role. In this study, the measure of Role Consistency, the individual's perception of himself as behaviorally consistent across interpersonal situations, serves as a crude estimate of "ego identity." In terms of normal psychological development, the task of establishing a sense of one's own identity becomes acute in late adolescence and early adulthood (the college population). The bulk of research to date has indicated that students seeking therapy, psychiatrically disturbed geriatric patients, and other samples of psychologically maladjusted individuals tend to experience little role consistency. Therefore, a relatively high Role Consistency score will be regarded as an indication of good self-identity.

Although the Texas Social Behavior Inventory was designed by the authors to assess individual perceptions of social competence and self-esteem, their computed factor analysis indicates that a large portion of the variance (72.3% for males and 72.8% for females) is found to be associated with the first factor, primarily concerned with "confidence." While self-esteem can be defined in terms of the value with which one is held by others and by him or herself, confidence reflects the expectancy held regarding one's ability to control his or

her environment to obtain the reinforcements that would lead to positive self-esteem. Rotter's measure of Locus of Control (I-E Scale) is a rough estimate of what can be considered a person's expectancies about control. It would seem likely that an internal locus of control (or confidence that reinforcements are contingent on one's own behavior) would enhance the occurrence of positive self-esteem. Thus, an internal locus of control would appear to increase the probability of a relatively high self-esteem, which in turn is a necessary component of a good self-identity.

Hypotheses Related to Sex-Role Identity and Age Group

The research data to date indicate that sex-role orientation may have differing implications for the psychological well-being of males and females, in the American culture. Group differences consistently favor the presence of relatively high masculinity scores (either alone or as a component of the androgyny score), regardless of sex, for good psychological adjustment. However, the scales currently in use were all constructed and standardized on middle-class American college students; and most of the research on psychological correlates of sex-role orientation has also been conducted on college populations.

It can be expected that individuals belonging to the same culture or subculture (the college population) will be relatively similar in identifying those personality attributes defining masculinity and femininity. Central to individual sex-role identity is the degree to which the individual believes he or she measures up to or believes it is important to measure up to his or her abstract conception of what it is to be masculine or feminine. Although a majority of individuals

may consider themselves as acceptable members of their sex, it is reasonable to expect considerable variability among men and women in the constellation of sex-typed characteristics they possess and in the nature of their self definition of masculinity and femininity. Further, one's sex-role identity, like other aspects of self, may be expected to change in response to the experiences one encounters over the life span. These changes may be most easily observed during critical developmental phases, when the environmental demands for adjustment are most severe. In late adolescence (college age sample), when individuals are struggling to establish a comfortable sexual identity, those traits generally associated with masculinity and femininity by our culture are apt to be cogent forces in the individual's self-concept.

On the other hand, Neugarten and Gutmann (1958), in their Thematic Apperception Test study of age-sex role and personality, present suggestive evidence which implies that for the aged male and female, those attributes that the researchers have labeled "masculine" and "feminine" may not be central to his or her self-definition. Their most striking finding was the fact that with increasing age of respondent, there seemed to be a role reversal in regard to authority in the family. The authors state, "these older men seem to be relatively acceptant of 'womanly' qualities in themselves and to feel little need to deny or limit these qualities. . . .the majority of women see the older woman in terms of assertive, intrusive qualities" (pp. 28-29).

Rosen and Neugarten (1960) used abbreviated Thematic Apperception Test protocols to study ego functions in samples of fully functioning individuals, aged 40-77 years. They hypothesized that with increasing

age there will be less energy available to the ego for maintaining involvements in the outer world. The dimensions studied were: (1) The ability to integrate wide ranges of stimuli; (2) The readiness to perceive or to deal with complicated, challenging, or conflictual situations; (3) The tendency to perceive vigorous and assertive activity; and (4) The tendency to perceive or to be concerned with feelings and affects as they play a part in life situations (p. 63). Rosen and Neugarten report that the aged population tends to respond to inner rather than to outer stimuli, to withdraw emotional involvements, to give up self-assertiveness, and to avoid rather than to embrace challenge. These changes that occur in the aged population, as reported by Rosen and Neugarten, would seem to have a greater effect on the agentic or instrumental characteristics.

For the aged male, the "withdrawal of emotional investment, the giving up of self-assertiveness, and the avoidance of challenge" is in accord with the reported acceptance of "womanly qualities" reported by Neugarten and Gutmann (1958).

Hypothesis 1: It is hypothesized that relative to all the other age groups, a proportionally greater number of the sample of men over 60 years of age will endorse more "feminine" characteristics and a lesser degree of "masculine" traits.

There is a conflict in trends reported by the two studies with regard to the females over 60 years of age. One study reports a greater acceptance of assertiveness, while the other reports a lessening of ego energy invested in self-assertiveness. Therefore, no comparable changes can be hypothesized for women over 60 years of age.

Hypothesis 2: For females, it is hypothesized that there will be no significant differences across age groups in the endorsement of masculine and feminine characteristics.

Hypotheses Relating Sex-Role Identity to Other Dimensions of Self-Identity, and the Interaction With Age

Block (1973) presents a conceptualization of sex-role development that establishes a relationship between sex-role identity and personal maturity; specifically, Loevinger's (1966a) stages of ego development. A brief sketch of her stages is presented: (1) In the earliest stage, the infant's task is to distinguish self from nonself and Block considers gender to be non-relevant at this stage. (2) At the impulse-ridden level, gender identity is essentially sexless, although the characteristic behaviors of the child include those that have been defined as masculine (concern with self-assertion, self-expression, and self-interest). (3) At the self-protective stage, the young child is still concerned primarily with the extension and enhancement of self, largely against the imposition of rules by socializing agents. (4) At the conformity stage, Block first recognizes the bifurcation in sex role development of boys and girls. Socializing patterns impinge differentially on the two sexes. (5) At the conscientious stage, the individual undertakes the examination and evaluation of self with respect to certain abstract values and ideals. Block states, "Notions about the 'kind of person I would like to be' are developed and behaviors are moderated in accordance with internalized values" (p. 514). (6) At the autonomous stage, the individual engages in a series of attempts at conflict resolution and the differentiation of self. At this stage, awareness develops of values, predispositions, and behaviors that depart from traditional sex-role definitions. (7) At the integrated stage (Loevinger's highest level of ego functioning) the individual evolves for himself or herself an identity

consonant with history and aspiration. With regard to sex-role identity, the definition derived by the individual represents an integration of traits and values, both masculine and feminine. Block refers to this individual as "androgynous."

Block (1973) reviewing her data from the longitudinal study (cited earlier in the Introduction) concludes that socialization for women, regardless of level of femininity as indexed by the California Psychological Inventory, "becomes associated with control of impulse expression and the renunciation of achievement and autonomy" (p. 523). She reports an inverse relationship between upward occupational mobility and femininity and adds,

Socialization tends to mitigate against career interests in women, but among those women who elect to enter the occupational arena, advancement in status is more likely to be achieved by women who diverge from the traditional feminine sex role stereotype. However, this advancement is achieved at some personal cost since communal, inter-dependent connectedness with others is suppressed and agency is exaggerated." (p. 525)

This concept is supported by two other independent sources, Jones et al. (1978) found that the more masculine in orientation the female, the more adaptive, competent, and secure the subject. They state, "What was unanticipated was that females who completely violated societal sex-role expectations appear to be happier, more competent, and more adaptive than either androgynous or sex-typed females" (p. 311). Wiggins and Holzmuller (1978) found that the index of profile variability was highest for androgynous females. They suggest that, "The greater profile variability of androgynous females may reflect a more differentiated self-perception of their part" (p. 51). An implicit corollary to the views and conclusions expressed by these researchers

is the notion that, because women need to counter social resistance and/or personal ambivalence to arrive at a perception of themselves as "masculine-typed" or "androgynous," they are more likely to have developed a greater sense of individuality based on their own inner characteristics.

Conversely, it is possible that the college-aged, "feminine-typed" female selects for emphasis that constellation of characteristics consistent with the demands of the role that she values most highly, at that period in life, in order to validate her femaleness. That is, her sense of self-identity is not secure or well-developed and she relies on their correspondence to traditional standards of behavior for her definition of "what is it to be feminine."

Bem hypothesizes that psychological androgyny affords greater flexibility and consequently leads to better adjustment and high self-esteem. Under the larger umbrella of self-identity, one can conceive of androgyny resulting from a more integrated personality structure or stronger self-identity which permits an individual to develop his or her own values and to adopt or reject the sex-role behaviors prescribed by our society, as they suit his or her own idiosyncratic needs and capacities.

This study explores the general hypothesis that sex-role identity is a central organizing force in the establishment of self-identity during early adulthood (the college sample) but not necessarily a dominant force in later life, particularly in old age. Chronological age is introduced as a variable that may interact with sex-role identity. Throughout this study, chronological age is used only as a convenient index for representing events that occur with the passage of time and has no connotation of developmental sequence.

Hypothesis 3: It is hypothesized that, within the college age group, knowledge of sex-role category membership will increase the predictability of significant relationships between the other psychological variables. That is, individuals who are categorized as Undifferentiated or Feminine-typed will have relatively low self-esteem scores, low role consistency scores and external locus of control. By contrast, individuals who are categorized as Androgynous or Maculine-typed are more likely to have higher self-esteem scores, higher role consistency scores and a more internal locus of control.

Hypothesis 4: It is hypothesized that, within the other three age groups, sex-role categorization will not serve as an organizing influence and will not be predictive of the relationships to the other measure of self-identity. That is, there will be no significant differences in self-esteem scores, role consistency scores or locus of control scores in relation to sex-role categorization.

Hypothesis Relating Sex-Role Identity to Demographic Data

In order to allow comparisons with the much researched college population, the data for this study were obtained from a similar population, which essentially stratified the sample with regard to education, and by extension, socio-economic level. Aside from this practical decision, however, it was also considered justifiable to assume that a greater proportion of men and women in this intellectually elite population would be facing or have faced the necessity of coping with contradictory roles. (It is presumed that an individual who endorses cross-sexed or androgynous characteristics has acknowledged to some extent conflicting internal and external needs.) This is, of course, an unsettled empirical question; but Spence and Helmreich (1978) present data that lend some support to this speculation.

During the academic years 1974-76, 1,769 junior and senior high school students (756 males and 1,013 females) were administered a battery of personality questionnaires. These students represented a broad range of socio-economic levels and religious backgrounds. The authors report significant class differences in their measure of educational aspiration (an indication of the least amount of education that would satisfy the individual). This in turn separated between their sex-role categories.

For males, 64% of the Upper middle class have high aspirations, in contrast to 54% of the Lower middle class. (High aspiration here denotes a college education.) For females, the corresponding figures are 55% for the Upper middle and 47% for the Lower middle. . . . In both the Upper and Lower middle classes a significant separation between PAQ categories (Personal Attitudes Questionnaire - Instrument for the assessment of masculinity and femininity analogous to the BSRI) and aspirations is found, with a higher percentage of Androgynous and Masculine individuals having high aspirations. Females provide a more interesting pattern of results than males, dividing significantly into three distinct groups. Masculine females are most likely to have high aspirations, followed at some distance by Androgynous and finally by Feminine and Undifferentiated females. (p. 96)

Hoffman and Fidell (1977) found two demographic characteristics to differentiate middle class women along the dimension of sex-role categories. In their sample of 369 middle class, 20-59 year old women, they report significant differences in employment status. Masculine and Androgynous women tended to work while Feminine and Undifferentiated women tended not to work ($\chi^2 = 19.49$, $p < .01$). Masculine and Androgynous women tended to work full time, while Feminine and Undifferentiated women were employed part time or not at all ($\chi^2 = 25.49$, $p < .001$). The four sex-role categories in their sample did not differ significantly in marital status, race, religion, or birth order.

In this study, it is hypothesized that there will be a significant difference in work status and in marital status among the sex-role categories.

Hypothesis 5: It is hypothesized that a significantly greater proportion of masculine-typed and androgynous women will fall into the full time or part time employment category.

Spence and Helmreich (1978) studied several unique populations in which the distribution across the sex-role categories might be expected to differ from those found in college students: 161 male and female academic scientists; 110 male and female homosexuals; and 41 female varsity athletes. These special groups were selected for conceptual validation of their measure of sex-role identity (Personal Attributes Questionnaire) by demonstrating its ability to discriminate between the college population and selected subgroups. In their college population, they found the following percentage of each sex falling into each category: Males - 32% Androgynous, 34% Masculine, 8% Feminine, and 25% Undifferentiated; Females - 27% Androgynous, 14% Masculine, 32% Feminine, and 28% Undifferentiated.

In the homosexual group, a dramatic reduction in the number of conventionally classified individuals was found. The authors state,

Only 9% of the males are Masculine and only 13% of the females are Feminine, but the redistribution into the other categories differs greatly between the sexes. Of the homosexual males, 50% were Undifferentiated, while 23% were classified as Feminine and 18% were designated Androgynous. Among lesbians, the largest groups was Androgynous (33%), but the percentages classified as Undifferentiated (32%) and Masculine (22%) were also elevated. (Spence & Helmreich, 1978, p. 67)

Within the group of female varsity athletes, they found the Feminine category to be the smallest in number. The Masculine category was greatly inflated while the Undifferentiated category was somewhat

reduced. The largest group was composed of those women classified as Androgynous. The distribution for male scientists was similar to that of college males, with a slight reduction in the proportions of Feminine and Undifferentiated individuals. The results for female scientists, however, showed a very different distribution from that of college women. "The largest group is Androgynous, with 46% of the women falling in this classification. The proportions of female scientists in the Masculine category (23%) is also markedly higher than in the college sample. The greatest reduction is in the Undifferentiated classification, with only 8% falling into this group" (Spence & Helmreich, 1978, pp. 69-70).

The pattern of results for these groups is consistent with the theoretical expectation that females who demonstrate a considerable level of instrumental orientation to attain their sexual or social roles will endorse a greater number of "masculine" characteristics. In our culture, marriage is considered the traditional and expected role for females. It can then be considered a break in convention for a female to remain single, get divorced, or remarry; in contrast to those females who are married or widowed.

Hypothesis 6: It is hypothesized that a greater proportion of the women in the "un-traditional" marital status categories will be Masculine-typed or Androgynous.

CHAPTER 3 RESULTS

Analyses of Data Related to the Bem Sex-Role Inventory

The sex-role categories are established by first determining the median masculinity and femininity scores for the sample. Those subjects who score above the masculinity median and below the femininity median are then classified as "masculine"; those who score above the femininity median and below the masculinity median are classified as "feminine"; those who score above both medians are classified as "androgynous"; and those who score below both medians are classified as "undifferentiated." The median masculinity and femininity scores for Bem's normative sample of college students were 4.89 for masculinity and 4.76 for femininity. Table 4 presents the medians, means, and standard deviations for the individuals in this sample.

Table 4
Bem Sex-Role Inventory Scores

Age Group	Femininity Scores			Masculinity Scores		
	Median	Mean	S.D.	Median	Mean	S.D.
Entire Population (274)	4.95	4.88	.545	5.10	5.06	.790
18-24 years (80)	4.95	4.88	.564	5.08	5.03	.774
25-49 years (77)	4.83	4.83	.526	5.20	5.16	.860
50-60 years (55)	5.02	4.93	.583	5.15	5.09	.691
Over 60 years (62)	5.05	4.90	.517	4.98	4.93	.799

S.D. = Standard Deviation

Table 5 presents comparable data separately for males and females.

Table 5
Bem Sex-Role Inventory Scores

Males Only

Age Group	Femininity Scores			Masculinity Scores		
	Median	Mean	S.D.	Median	Mean	S.D.
18-24 years (40)	4.72	4.62	.440	5.28	5.34	.651
25-49 years (38)	4.65	4.60	.527	5.72	5.60	.644
50-60 years (25)	4.65	4.63	.508	5.40	5.44	.516
Over 60 years (30)	4.70	4.72	.609	5.08	5.15	.714

Females Only

18-24 years (40)	5.10	5.14	.557	4.72	4.72	.772
25-49 years (39)	5.02	5.04	.431	4.80	4.74	.841
50-60 years (30)	5.32	5.17	.528	4.82	4.80	.692
Over 60 years (32)	5.12	5.06	.345	4.92	4.72	.828

There was a tendency for men between the ages of 25-49 years of age to endorse more masculine characteristics and for women over 50 years of age to endorse more feminine characteristics. Hypothesis 1 predicted that, relative to all the other age groups, a proportionally greater number of men over 60 years of age would endorse more "feminine" characteristics and less "masculine" characteristics. Hypothesis 2 predicted that for females there would be no significant differences across age groups in the endorsement of masculine and feminine characteristics.

Hypotheses 1 and 2 were tested. A two-way analysis of variance was performed, separately for masculinity scores and femininity scores, with gender and age group as the independent factors. There was a significant

interaction for both masculinity scores ($F = 6.778$, 4 d.f., $p < .001$) and for femininity scores ($F = 11.840$, 4 d.f., $p < .001$). The main effect for gender was also significant for masculinity scores ($F = 25.847$, 1 d.f., $p < .001$) and for femininity scores ($F = 44.608$, 1 d.f., $p < .001$), indicating that the masculinity and femininity scores are related to gender. Across all age groups, males had higher masculinity score means and lower femininity score means; while females had higher femininity score means and lower masculinity score means. A one-way analysis of variance was performed, separately for males and females, across the four age groups, for masculinity scores and femininity scores. For males, there was a significant ($F = 47.25$, 3 d.f., $p < .001$) difference among the mean masculinity scores across the age groups, but no significant differences in femininity scores. T-tests were performed on mean masculinity scores, comparing the four age groups. The masculinity score mean of men over 60 years of age differed significantly ($t = 2.704$, 66 d.f., $p < .01$) from that of males 25-49 years of age. Men 25-49 years of age attributed higher levels of masculine traits to themselves than men over 60 years of age. There were no significant differences in masculinity or femininity score means across the four age groups for the females.

The medians for the college age group (masculinity score means = 5.08, femininity score median = 4.95) were almost identical to the medians for the entire sample (masculinity score median = 5.10, femininity score median = 4.95). Therefore, yielding to the convention of other researchers, the college medians were used as the basis for deriving the four sex-role categories.

Chi-square analyses were performed with respect to this categorization, comparing the four age groups. There were no significant differences in the distribution of females into the four sex-role categories, across the four age groups. There was a significant difference in distribution between males over 60 years of age and males 25-49 years of age ($\chi^2 = 8.48$, 3 d.f., $p < .05$) and males 50-60 years of age ($\chi^2 = 12.46$, 3 d.f., $p < .01$). In both instances, a significantly greater number of males over 60 years of age fell into the Undifferentiated category and a fewer number in the Masculine category in comparison to the other two age groups.

Analyses of Relationships Between Independent Variables and Dependent Variables

In this study, the independent variables are attribute variables and thus cannot be manipulated. Subjects were assigned to subgroups on the basis of their status on the attribute variables resulting in unequal numbers of subjects in the cells of the design. This signifies a correlation between the independent variables. Therefore, the more general multiple regression analysis technique was selected to analyze the data. The following analyses were designed to test Hypotheses 3 and 4. Hypothesis 3 predicted that within the college age group, the Undifferentiated and Feminine-typed subjects would have relatively lower self-esteem and role consistency scores and have a more external locus of control; while the Androgynous and Masculine-typed subjects would have higher self-esteem and role consistency scores and would be more internal in locus of control. By contrast, Hypothesis 4 predicted that within the other three age groups, there would be no significant differences in self-esteem, role consistency scores, or locus of control, in relation to sex-role categorization.

Multiple regression analysis is suited to studying the influence of several independent variables on a dependent variable by helping to "explain" the variance of the dependent variable. The predictor or independent variables are gender, sex-role category, and chronological age. The dependent or criterion variables are measure of self-esteem (Texas Social Behavior Inventory), measure of locus of control (I-E Scale), and a measure of role consistency. All analyses were based on $N = 254$ due to a listwise deletion of missing data.

The first analysis was conducted to determine whether sex-role category (knowledge of a subject's sex role category) accounts for a portion of the variance of the dependent variables. Since past research indicates that gender is likely to have a confounding effect, gender was entered into the formula with Female = 1 and Male = 0. Dummy variables were created to represent sex-role category membership. Each category was treated as a dichotomous variable and a 1 or 0 assigned depending on membership in the category. Since there are four sex-role categories, the fourth dummy variable is determined by the first three dummy variables ($k - 1$) entered into the regression equation. The Undifferentiated category was designated the reference category and all other categories were interpreted in reference to the Undifferentiated category. Table 6 presents the output of the multiple regression analyses of the dependent variables with sex-role category and gender.

With regard to the measure of self-esteem, sex-role categorization accounts for 24% of the variance. Masculine-typed and Androgynous subjects tended to have the highest self-esteem scores, followed by the Feminine-typed and Undifferentiated subjects. However, there was a sex difference in the pattern of relationships, such that within each category, individuals of the female gender were slightly higher in self-esteem.

Table 6
Multiple Regression Analyses
With Sex-Role Category and Gender

Texas Social Behavior Inventory

Variables	B	Beta	F(1, 249)	R ²
Gender	4.891	0.140	4.928*	.001
Androgynous	20.032	0.489	49.215**	.070
Maculine	20.310	0.524	51.950**	.163
Feminine	4.417	0.112	2.331	.007
Constant <u>(Undifferentiated)</u>	74.855			

The regression model is significant ($F = 19.801$, 4,249 d.f., $p < .01$) with $R^2 = .241$.

Role Consistency

Gender	0.257	0.088	1.571	.004
Androgynous	0.107	0.310	16.205**	.061
Maculine	0.383	0.116	2.137	.006
Feminine	0.212	0.640	0.618	.002
Constant <u>(Undifferentiated)</u>	0.447			

The regression model is significant ($F = 4.903$, 4,249 d.f., $p < .01$) with $R^2 = .073$.

Locus of Control

Gender	.939	0.114	2.613	.029
Androgynous	-.225	-0.023	0.089	.007
Masculine	.311	0.034	0.176	.001
Feminine	1.497	0.162	3.849	.015
Constant <u>(Undifferentiated)</u>	7.322			

The regression model is significant ($F = 3.44$, 4,249 d.f., $p < .01$) with $R^2 = .053$.

* $p < .05$

** $p < .01$

Sex-role categorization accounted for only 7% of the variance in role consistency scores and 5% of the variance in locus of control scores. Gender did not account for any significant portion of the variance of the role consistency scores or the locus of control scores. Androgynous subjects were significantly higher in role consistency scores than the Undifferentiated subjects. None of the metric betas (B) attained significance with respect to locus of control; however, Feminine-typed females tended to have the most external locus of control and Androgynous males the most internal locus of control.

Due to the nature of its computation, sex-role categorization results in a loss of information about the effects of the actual magnitude of masculinity and femininity scores. Therefore, multiple regression analyses were run for all the dependent variables with actual masculinity and femininity scores. In view of the fact that the dependent variables are differentially affected by gender, interactions of gender and masculinity and femininity scores were entered into the formula. Table 7 presents the output for the multiple regression analyses of the dependent variables with masculinity score, femininity score, gender, interaction of gender and masculinity and femininity score. The hierarchical decomposition method was employed with masculinity and femininity scores and gender entered before the interaction terms.

In no case were the interaction terms significant; therefore, the simplified regression model is presented.

With regard to self-esteem, 47.65% of the variance was accounted for by the analysis based on this regression model. High endorsement of masculine characteristics accounted for 40.8% of the variance and

Table 7
Multiple Regression Analyses
With Bem Sex-Role Inventory Scores

Texas Social Behavior Inventory

Variable	B	Beta	F(1, 250)	R ²
Masculine	16.838	0.754	220.897**	.408
Gender	9.683	0.278	25.481**	.068
Feminine	0.566	0.017	0.115	.000
Constant (Undifferentiated)	-4.115			

The regression model is significant ($F = 75.862$, 3,250 d.f., $p < .001$) with $R^2 = .4765$. Recalling that the regression model utilizing sex-role categories accounted for only 24% of the variance, there is indication that much information is lost in the categorization procedure.

Role Consistency

Feminine	0.384	0.137	4.150*	.027
Masculine	0.383	0.204	9.002**	.028
Gender	0.267	0.091	1.519	.006
Constant (Undifferentiated)	0.106			

The regression model is significant ($F = 5.420$, 3,250 d.f., $p < .01$) with $R^2 = .0611$.

Locus of Control

Masculine	-1.028	-0.195	8.246**	.051
Feminine	0.492	0.063	0.869	.008
Gender	0.551	0.067	0.826	.003
Constant (Undifferentiated)	10.758			

The regression model is significant ($F = 5.450$, 3,250 d.f., $p < .01$) with $R^2 = .0614$.

gender accounted for 6.7% of the variance. This analysis confirms the results presented in Table 6 and provides the additional information that masculinity accounts for high self-esteem regardless of how the individual stands on femininity.

The analysis based on this regression model was also significant for role consistency, but explained only 6.1% of the variance. Individuals with high masculinity scores and high femininity scores (Androgynous individuals) tended to have the highest role consistency scores.

The analysis based on this regression model was significant for the locus of control measure and accounted for 6.1% of the variance. Individuals with high masculinity scores tended to have the most internal locus of control.

The next analysis was conducted to determine whether age group (membership in a particular age group) accounts for any of the variance of the dependent variables. Table 8 presents the output for the multiple regression analyses of dependent variables with gender and age group. Dummy variables were created for age groups with the 25-49 year olds as the reference group. The following notations will apply for age groups: Group 1 = 18-24 year olds; Group 2 = 25-49 year olds; Group 3 = 50-60 year olds; and Group 4 - over 60 years of age.

The analysis based on the regression model was not significant for self-esteem or role consistency measures. With regard to the locus of control measure, a greater percentage of the variance was accounted for by age group than by sex-role category. A significantly greater number of female students tended to endorse an external locus of control. Although it did not attain significance, individuals over 60 years of age tended to express the most internal locus of control.

Table 8
Multiple Regression Analyses
With Age Groups

Texas Social Behavior Inventory

Variable	B	Beta	F(1, 249)	R ²
Gender	-1.103	-0.317	0.253	.001
Group 1	-3.586	-0.095	1.599	.011
Group 3	2.602	0.059	0.656	.004
Group 4	-0.859	-0.020	0.076	.000
Constant (Group 2)	90.377			

The regression model is not significant ($F = 1.031$, 4,249 d.f.) with $R^2 = .016$ indicating that knowledge of age and or sex of an individual alone does not significantly improve predictability of self-esteem scores.

Role Consistency

Gender	.183	.062	.981	.004
Group 1	.127	.040	.284	.000
Group 3	-.264	-.007	.010	.003
Group 4	.439	.123	2.805	.011
Constant (Group 2)	.479			

The regression model is not significant ($F = 1.125$, 4,249 d.f.) with $R^2 = .018$.

Locus of Control

Gender	1.510	0.184	9.859**	.029
Group 1	2.978	0.334	22.946**	.114
Group 3	0.551	0.053	0.612	.005
Group 4	-0.609	-0.061	0.794	.003
Constant (Group 2)	6.576			

The regression model is highly significant ($F = 11.084$, 4,249 d.f., $p < .01$) with $R^2 = .151$.

Treating a continuous variable as a categorical variable leads to loss of information as was evident with the results of sex-role categorization. Therefore, multiple regression analyses were run on the dependent variables with gender and age plus the interaction of age and gender. The analysis based on this model was not significant for self-esteem nor for role consistency, confirming the earlier analyses. Table 9 presents the results for the locus of control measure.

Table 9
Multiple Regression Analysis
With Age and Gender

Locus of Control

Variables	B	Beta	F(1,250)	R ²
Gender	1.458	0.177	1.605	.029
Age	-0.629	-0.299	12.310**	.088
Age/Sex	0.815	0.005	0.001	.000
Constant	10.086			

The regression model is highly significant ($F = 11.085$, 3,250 d.f., $p < .001$) with $R^2 = .1174$.

Finally, multiple regression analyses were run on each of the dependent variables with sex-role category, gender, and chronological age to determine the effect of each of the independent variables on the dependent variables with adjustments made for all other independent variables. The actual chronological age of the subject was entered into the formula because the entry of age group category plus sex-role category seriously violates the assumption of a normal distribution. Table 10 presents the output from the analyses.

Although the relationship of sex-role category to self-esteem did not change (i.e., Androgynous and Masculine-typed individuals with higher self-esteem scores; Feminine-typed and Undifferentiated individuals

Table 10
Multiple Regression Analyses With All
 Independent Variables

Texas Social Behavior Inventory

Variables	B	Beta	F(1, 248)	R ²
Feminine	4.529	0.115	2.472	.036
Gender	4.893	0.140	4.977**	.004
Age	0.889	0.010	3.253	.004
Androgynous	20.116	0.491	50.064**	.087
Maculine	20.782	0.536	54.412**	.251
Constant <u>(Undifferentiated)</u>	70.966			

The regression model is significant ($F = 16.635$, 5,248 d.f., $p < .01$)
 with $R^2 = .2512$.

Role Consistency

Feminine	0.217	0.065	0.646	.002
Gender	0.257	0.088	1.570	.008
Age	0.387	0.052	0.704	.003
Androgynous	0.107	0.311	16.292**	.054
Masculine	0.404	0.124	2.349	.009
Constant <u>(Undifferentiated)</u>	0.430			

The regression model is significant ($F = 4.059$, 5,248 d.f., $p < .01$)
 with $R^2 = .0756$.

Locus of Control

Feminine	1.417	0.153	3.787	.042
Gender	0.938	0.114	2.859	.008
Age	-0.626	-0.298	25.242**	.089
Androgynous	-0.284	-0.029	0.156	.001
Masculine	-0.211	-0.002	0.001	.000
Constant <u>(Undifferentiated)</u>	10.061			

The regression model is significant ($F = 8.098$, 5,248 d.f., $p < .01$)
 with $R^2 = .1404$.

with lower self-esteem scores); the older females tended to have higher self-esteem scores. With regard to locus of control, this analysis confirmed the earlier analysis. The 18-24 year old Feminine-typed females tended to have the most external locus of control and the males over 60 years of age the most internal locus of control. Age was not a very significant factor in the analysis of the role consistency variable but the tendency was for older Androgynous females to have higher role consistency scores.

Analyses of variance were also performed on each of the dependent variables as another method for examining the data. In general, the pattern of differences closely resembled that obtained from the multiple regression analyses. Table 11 presents the means and standard deviations for the Texas Social Behavior Inventory scores.

Table 11
Texas Social Behavior Inventory

Males				Males			
Age Group	N	Mean	S.D.	Sex-Role	N	Mean	S.D.
1	40	89.20	13.33	Androgynous	30	95.23	11.23
2	37	91.84	16.61	Masculine	62	95.69	14.29
3	25	91.32	20.10	Feminine	10	77.50	13.80
4	30	87.60	16.41	Undifferentiated	30	77.07	16.08
Females				Females			
1	39	83.33	19.61	Androgynous	31	98.55	15.56
2	39	87.23	17.39	Masculine	18	102.50	12.81
3	30	93.73	17.01	Feminine	63	83.14	18.34
4	32	89.47	20.96	Undifferentiated	28	78.18	16.90

There was no significant difference in Texas Social Behavior Inventory means between males (89.98) and females (88.05). There were no

significant differences in means between age groups. There was a highly significant difference in means among sex-role categories ($F = 50.15$, 7,264 d.f., $p < .01$). The differences were also highly significant for males only ($F = 143.24$, 3,128 d.f., $p < .01$) and for females only ($F = 58.74$, 3,136 d.f., $p < .01$). Regardless of gender, masculine and androgynous subjects attained significantly higher self-esteem scores than feminine-typed and undifferentiated subjects with no significant differences between masculine-typed and androgynous subjects nor between feminine-typed and undifferentiated subjects.

Table 12 presents the means and standard deviations for the role consistency scores.

Table 12
Role Consistency

Age Group	Males			Sex-role	Males		
	N	Mean	S.D.		N	Mean	S.D.
1	40	.472	0.14	Androgynous	30	.542	0.15
2	37	.486	0.13	Masculine	57	.492	0.12
3	20	.491	0.17	Feminine	8	.430	0.16
4	26	.527	0.13	Undifferentiated	28	.450	0.15

	Females			Sex-role	Females		
	N	Mean	S.D.		N	Mean	S.D.
1	40	.526	0.15	Androgynous	31	.588	0.15
2	38	.490	0.15	Masculine	16	.474	0.14
3	29	.485	0.13	Feminine	61	.497	0.17
4	29	.537	0.16	Undifferentiated	28	.470	0.15

There was no significant difference in mean role consistency scores between males (.491) and females (.509). There were no significant differences in means between age groups. The difference in means was highly significant for sex-role categories ($F = 40.07$, 7,252 d.f., $p < .01$). Androgynous females were significantly higher in role consistency scores than all the other sex-role category groups of both genders except for Androgynous males. The Androgynous males were not significantly different from individuals in the other sex-role categories.

Table 13 presents the means and standard deviations for the locus of control measure.

Table 13
Locus of Control

Age Group	Males				Sex-role	Males		
	N	Mean	S.D.			N	Mean	S.D.
1	39	9.4	4.0		Androgynous	30	7.2	3.9
2	38	6.5	3.6		Masculine	62	7.9	3.9
3	25	8.0	3.6		Feminine	10	8.2	4.9
4	29	5.8	3.9		Undifferentiated	29	6.7	4.0

	Females				Sex-role	Females		
	N	Mean	S.D.			N	Mean	S.D.
1	39	11.1	4.2		Androgynous	30	8.0	4.2
2	39	8.3	3.4		Masculine	18	7.7	3.6
3	30	8.2	3.6		Feminine	64	9.8	3.9
4	32	7.8	4.0		Undifferentiated	28	8.8	4.0

There was a significant difference in mean locus of control scores between males (7.5) and females (8.9). There were significant differences in mean locus of control scores across age groups ($F = 6.619$, 7,263 d.f., $p < .01$). The female students were significantly more external in locus

of control than all the other age groups except the male students. The males over 60 years of age were significantly more internal in locus of control than all other groups except the males 25-49 years of age.

There were also significant differences in locus of control means within the sex-role categories ($F = 40.319$, 7,264 d.f., $p < .01$). The Undifferentiated males (largely composed of males over 60 years of age) were significantly more internal in locus of control than the Undifferentiated females and both males and females who fell into the Feminine-typed category.

Table 14 presents the means and standard deviations for the self-esteem (Texas Social Behavior Inventory) measure after breakdown by age group and sex-role category.

Modified t tests, which takes into account the difference in variance and Ns, were done to discern any significant differences in means whenever the analysis of variance resulted in a significant F test. There were no significant differences in the student group. The Androgynous males 25-49 years of age were higher in self-esteem than the Undifferentiated males in this age group. There were no significant differences among the females of this group. The Androgynous females 50-60 years of age were higher in self-esteem than the Undifferentiated females of this age group. There were no significant differences among the males of this age group. Within the oldest age group, Masculine-typed males were higher in self-esteem than the Undifferentiated males; and the Masculine-typed females were higher in self-esteem than the Feminine-typed and Undifferentiated females.

Table 15 presents the means and standard deviations for the role consistency measure after breakdown by age group and sex-role category. The only difference in means to attain significance, after adjusting for

Table 14
Texas Social Behavior Inventory

<u>Students</u>								
<u>Males</u>				<u>Males</u>				
<u>Sex-role</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>Sex-role</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	
Androgynous	10	90.30	7.42	Androgynous	9	93.11	12.53	
Masculine	17	95.24	12.88	Masculine	5	98.80	15.69	
Feminine	4	76.50	18.59	Feminine	19	78.05	20.57	
Undifferentiated	9	82.22	12.18	Undifferentiated	6	72.50	17.12	
<u>25-49 year olds</u>								
Androgynous	7	102.43	2.94	Androgynous	8	96.38	19.80	
Masculine	23	96.00	8.51	Masculine	6	97.17	7.88	
Feminine	0			Feminine	15	84.93	15.02	
Undifferentiated	7	67.57	22.31	Undifferentiated	10	77.40	18.16	
<u>50-60 year olds</u>								
Androgynous	5	92.00	18.76	Androgynous	7	106.14	14.11	
Masculine	15	93.40	22.91	Masculine	1	128.00		
Feminine	2	77.50	2.12	Feminine	15	88.60	16.55	
Undifferentiated	3	89.00	15.39	Undifferentiated	7	87.43	8.50	
<u>Over 60 years old</u>								
Androgynous	8	97.12	12.04	Androgynous	7	100.43	14.92	
Masculine	7	100.71	11.25	Masculine	6	106.67	10.01	
Feminine	4	78.50	14.89	Feminine	14	82.28	20.09	
Undifferentiated	11	75.64	12.39	Undifferentiated	5	73.60	22.01	

Table 15
Role Consistency

Sex-role	Males			Students			Females		
	N	Mean	S.D.	Sex-role	N	Mean	S.D.		
Androgynous	10	.518	.173	Androgynous	9	.641	.189		
Masculine	17	.456	.116	Masculine	5	.520	.125		
Feminine	4	.430	.190	Feminine	20	.480	.122		
Undifferentiated	9	.467	.148	Undifferentiated	6	.510	.142		
<u>25-49 year olds</u>									
Androgynous	7	.582	.118	Androgynous	8	.535	.158		
Masculine	23	.496	.106	Masculine	6	.483	.112		
Feminine	0			Feminine	14	.491	.160		
Undifferentiated	7	.357	.105	Undifferentiated	10	.455	.171		
<u>50-60 year olds</u>									
Androgynous	5	.482	.205	Androgynous	7	.538	.074		
Masculine	11	.517	.151	Masculine	1	.269			
Feminine	1	.134		Feminine	14	.479	.151		
Undifferentiated	3	.362	.221	Undifferentiated	7	.476	.104		
<u>Over 60 years old</u>									
Androgynous	8	.575	.133	Androgynous	7	.632	.151		
Masculine	6	.533	.127	Masculine	4	.456	.188		
Feminine	3	.361	.109	Feminine	13	.547	.136		
Undifferentiated	9	.535	.118	Undifferentiated	5	.442	.179		

the differences in variances and Ns, was within the student female group. The Androgynous females were significantly higher in role consistency scores than the Feminine-typed females of this group.

Table 16 presents the means and standard deviations for the locus of control measure after breakdown by age group and sex-role category. The only differences in means to attain significance were in the student female group. The Androgynous females were significantly more internal in locus of control than the Feminine-typed and Undifferentiated females of this age group.

The Relationship of Demographic Data to Sex-Role Categorization

The distribution of subjects into educational categories (68% of the females and 75% of the males were college graduates); and retirement status (93% of the men over 60 years of age were retired and not working) did not lend itself to statistical analysis.

Hypothesis 5 predicted that a significantly greater proportion of Masculine-typed and Androgynous women would fall into the full-time or part-time employment category. There was a significant difference in sex-role category distribution ($\chi^2 = 8.24$, 3 d.f., $p < .05$) between women who had never worked (full-time housewife category) and women who have worked or are now working. A significantly greater number of working women fell into the Androgynous and Masculine-typed categories.

Hypothesis 6 stated that a greater proportion of the women in the "un-traditional" marital status categories would be Masculine-typed or Androgynous. Sixty-seven women were either married or widowed, while thirty-three women were either single, divorced, or remarried. The distribution of women in the first group (traditional marital status) was compared to the distribution in the second group ("un-traditional"

Table 16
Locus of Control

<u>Students</u>							
<u>Sex-role</u>	<u>Males</u>			<u>Females</u>			<u>S.D.</u>
	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>	<u>Mean</u>		
Androgynous	10	8.2	4.0	Androgynous	8	8.1	4.6
Masculine	16	10.5	2.9	Masculine	5	8.4	4.7
Feminine	4	11.2	5.2	Feminine	20	12.4	3.7
Undifferentiated	9	8.0	4.8	Undifferentiated	6	13.3	2.1

<u>25-49 year olds</u>							
<u>Sex-role</u>	<u>Males</u>			<u>Females</u>			<u>S.D.</u>
	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>	<u>Mean</u>		
Androgynous	7	5.6	3.6	Androgynous	8	8.2	3.4
Masculine	24	6.5	3.5	Masculine	6	6.3	1.5
Feminine	0			Feminine	15	8.8	3.8
Undifferentiated	7	7.4	3.9	Undifferentiated	10	8.7	2.8

<u>50-60 year olds</u>							
<u>Sex-role</u>	<u>Males</u>			<u>Females</u>			<u>S.D.</u>
	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>	<u>Mean</u>		
Androgynous	5	6.4	2.6	Androgynous	7	8.6	4.3
Masculine	15	8.9	3.8	Masculine	1	11.0	
Feminine	2	7.5	3.5	Feminine	15	9.0	3.2
Undifferentiated	3	6.3	4.0	Undifferentiated	7	5.7	3.1

<u>Over 60 years old</u>							
<u>Sex-role</u>	<u>Males</u>			<u>Females</u>			<u>S.D.</u>
	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>N</u>	<u>Mean</u>		
Androgynous	8	7.8	4.7	Androgynous	7	6.8	5.3
Masculine	7	4.8	3.9	Masculine	6	8.0	4.2
Feminine	4	5.5	4.2	Feminine	14	8.2	3.4
Undifferentiated	10	5.1	3.1	Undifferentiated	5	8.0	4.6

marital status) across the four sex-role categories by means of Chi-square analysis. The result was not significant ($\chi^2 = 6.32$). However, the distribution was skewed in the hypothesized direction. Fifty-one percent of the women in the "un-traditional" marital status group was either Androgynous (30%) or Masculine-typed (21%); whereas, only 27% of the women in the traditional marital status group fell into the Androgynous (18%) or the Masculine-typed (9%) categories.

CHAPTER 4 DISCUSSION

This study was designed to explore the nature of the influence of societal age role prescriptions on sex-role identity and self-identity for males and females. First, with regard to sex-role identity per se, it was hypothesized that a proportionally greater number of men over 60 years of age would endorse more feminine characteristics and less masculine characteristics. Not only did men over 60 years of age attribute significantly lower levels of masculine traits to themselves than men 25-49 years of age; but the hierarchy of age groups in terms of masculinity score medians was 25-49 years olds = 5.72, 50-60 years olds = 5.40, 18-24 year olds = 5.28, and over 60 years old = 5.08. This is not surprising since the items that comprise the masculinity subscale have the underlying commonality of being instrumental in nature. The years from 25-60 are probably the most productive years for males in our society; thus, it is reasonable that more individuals in this age range would endorse a high degree of those agentic or instrumental characteristics that are most likely to lead to rewards within the context of our society's values.

There was also a significant difference in sex-role categorization for males. A significantly greater number of males over 60 years of age fell into the Undifferentiated category and a fewer number into the Masculine category in comparison to the 25-49 year old group ($\chi^2 = 8.48$) and the 50-60 year old group ($\chi^2 = 12.46$). The distribution of the college age group fell somewhere in between the 25-60 year olds and the

oldest group of men. The difference in distribution did not attain significance but the tendency was in the hypothesized direction. In the college sample, the following percentages of individuals fell into each category: 25% Androgynous, 42.5% Masculine, 10% Feminine, and 22.5% Undifferentiated. The following percentages were found for men over 60 years of age: 26.7% Androgynous, 23.3% Masculine, 13.3% Feminine, and 36.7% Undifferentiated. Only part of Hypothesis 1 was confirmed. A greater proportion of males over 60 years of age endorsed less "masculine" characteristics but did not endorse more "feminine" characteristics. These results appear to be congruent with society's age role expectations for men after retirement; i.e., achievement demands imposed by society diminishes after retirement and this may be related to the endorsement of less masculine (achievement oriented) characteristics by the men over 60 years of age.

Hypothesis 2 was confirmed. There were no significant differences in the distribution of females into the sex-role categories across the four age groups, nor were there any differences in the degree of endorsement of masculine or feminine characteristics. In each age group, the largest percentage of subjects fell into the feminine category: 50% of 18-24 year olds, 38% of 25-49 year olds, 50% of 50-60 year olds, and 44% of females over 60 years of age.

With regard to sex-role identity, it is possible that the American culture not only provides more distinct and easily discriminable cues for sex-appropriate behaviors for males, but also provides more explicit age role sanctions for males. During those years when the masculine traits are important components of their age role prescription, a greater proportion of males tend to endorse these masculine characteristics.

When their age role prescription diminishes the importance of the masculine traits, a greater proportion of males may adjust to this change by endorsing the lesser degree of masculine characteristics. These results are also in accord with the findings of Rosen and Neugarten (1960), who reported that the aged population tended to give up self-assertiveness, and to avoid rather than to embrace challenge. However, this sample of men over 60 years of age did not seem to endorse more "womanly" qualities as reported by Neugarten and Gutmann (1958).

In a sense, the results for the females may also reflect societal prescriptions. Just as there was a conflict in trends reported by Neugarten and Gutmann (1958) and Rosen and Neugarten (1960), the changes, if any, in the age role prescriptions may be less clearcut for females. This vagueness may be reflected in the lack of differences among the four age groups.

Statistical Characteristics of the Self-Identity Measures

The Texas Social Behavior Inventory is strongly related to the measure of masculinity. The authors (Helmreich et al., 1974) state:

For males, the correlation between the Personal Attributes Questionnaire (PAQ - a measure of sex-role analogous to Bem's Sex-Role Inventory) and the Texas Social Behavior Inventory is .54 ($p < .001$) indicating that the more stereotypically masculine a male rates himself, the higher his self-esteem. The correlation is in the same direction but stronger for females ($r = .59$, $p < .001$) suggesting that the more a woman attributes masculine characteristics to herself, the higher her self-esteem. (p. 4)

The data from this study confirm the correlation between the masculine subscale and the measure of self-esteem. An individual's masculinity score accounts for 46.4% out of 47.7% of the variance

explained by the masculinity and femininity scores. Femininity scores had no input for self-esteem. Further, neither age nor gender contributed greatly to the variance of the Texas Social Behavior Inventory scores. The authors of the Texas Social Behavior Inventory have defined what they consider to be the means for attaining high self-esteem; i.e., social competence. They pose the question, "How confident do you feel that you can elicit self-esteem from others by the competent performance of these behaviors?" They define social competence in terms of masculine characteristics; therefore, the endorsement of a large number of masculine characteristics necessarily leads to a high score on the Texas Social Behavior Inventory. The results are intrinsic to the nature of the measure. It is plausible that in our culture those behaviors characterized as masculine do lead to more positive reinforcement and higher self-esteem. However, the Texas Social Behavior Inventory does not directly measure self-esteem defined as pride in oneself. In this study, masculinity was the determining factor for high self-esteem but was not consistently correlated with high role consistency or a more internal locus of control. By the same token, Undifferentiated and Feminine-typed subjects with low masculinity scores were consistently lower in self-esteem but not necessarily lower in role consistency or more external in locus of control.

Both masculinity and femininity scores contributed to the variance in Role Consistency scores. The Androgynous individuals, regardless of age or gender, tended to have the highest Role Consistency scores. Neither age nor gender was consistently related to Role Consistency scores; however, the subjects over 60 years of age tended to have higher Role Consistency scores.

None of the college age students, but at least half of the sample of individuals over 25 years of age, complained in writing or verbally about the required forced choices in the Locus of Control measure. These individuals expressed their frustration at having to decide between "black and white" alternatives, when they felt the situations presented often did not warrant such unqualified decisions. Gurin, Gurin, Lao, and Beattie (1969) factor-analyzed Rotter's scale (Appendix E) and found separate factors for personal as opposed to general causality. The first factor "control ideology" includes items 16, 11, 6, 23, 7, 10, 26, 20, and 18; and seems to measure the respondent's general beliefs about the role of internal and external forces in determining success or failure in the culture at large. The second factor "personal control" contains items 13, 9, 28, 25, and 15; and seems to measure the respondent's belief in his or her own competence to control what happens in his or her own life. The complaints were without exception aimed at questions regarding "control ideology." The Locus of Control measure was introduced into this study in an attempt to obtain some measure of the sense of confidence, or lack of it, individuals possess that he or she can influence the environment by competent performance to elicit desired results. The utility of this measure is probably obfuscated by the multidimensional character of the present Locus of Control measure. For the purpose of this study, more precision in assessment can probably be gained by a measure that focuses on and enlarges on the personal control dimension of the scale.

This is the one measure in which chronological age accounted for most of the variance. The linear relationship was such that the older individuals were more internal in locus of control. Other variables contributing to the variance in Locus of Control scores were gender and femininity scores. Feminine-typed females tended to have the most external locus of control.

Sex-Role Identity and Its Relationship to Gender, Chronological Age, and Other Measures of Self-Identity

There seems to be some indication, as discussed earlier, that cultural definitions of age role (developmental stage) influence an individual's sex-role identity. The relationship between cultural prescriptions and sex-role patterns appears to be clearer for males in our society. Conversely, Hypotheses 3 and 4 predicted that the importance of sex-role identity, itself, within the larger framework of self-identity would also change with age. Hypothesis 3 predicted that during late adolescence, when an individual is engaged in establishing his or her self-identity, sex-role identity would have an organizing and major impact on how one feels as a person. Hypothesis 4 predicted that beyond the college age, sex-role identity would not play a major role in determining an individual's self-concept.

Based on past research (Bem, 1977; Jones et al., 1978; Spence et al., 1975; Wetter, 1975), Hypothesis 3 predicted that within the college sample, individuals who are categorized as Undifferentiated or Feminine-typed would have relatively low self-esteem scores, low role consistency scores, and a more external locus of control. By contrast, individuals who were categorized as Androgynous or Masculine-typed were predicted to have higher self-esteem scores, higher role consistency scores, and a

more internal locus of control. The Feminine-typed and Undifferentiated subjects of both genders were significantly lower in self-esteem. The Feminine-typed females were significantly lower in role consistency scores than the Androgynous females. The Feminine-typed and Undifferentiated females were also significantly more external in locus of control than the Androgynous females.

Hypothesis 4 proposed no significant differences in self-esteem scores, role consistency scores, or locus of control scores in relation to sex-role categorization, among the other three age groups. As was discussed earlier, self-esteem scores are related to sex-role categorization. The Masculine-typed and Androgynous subjects, regardless of age group, had higher self-esteem scores; while the Feminine-typed and Undifferentiated subjects had lower self-esteem scores. However, there were no consistent differences in role consistency scores or locus of control scores across the three older age groups associated with sex-role categories.

Hypotheses 3 and 4 were partially confirmed. Self-esteem was almost entirely determined by the masculinity subscale score regardless of gender or age. The college age Feminine-typed subjects were significantly lower in role consistency and the most external in locus of control. These results may be a reflection of the conflict inherent in attempting to maintain a feminine self-identity in a society that rewards masculinity during a developmental phase when sex-role identity is a major issue. On the other hand, within the other three age groups, there were no consistent or significant differences in Role Consistency scores or Locus of Control scores associated with maintaining a feminine identity.

Additional support for the hypothesis that the significance of sex-role identity in relation to self-identity changes with developmental stages was found with reference to the oldest age group. A large number of men over 60 years of age fell into the Undifferentiated category. Past research has often supported the notion that the Undifferentiated individual is at a psychological disadvantage because he or she has a smaller repertoire of behaviors to adjust to environmental demands. Kelly and Worrell (1977) reviewing the research on the new formulation of sex roles state: "Androgynous persons were highest in social poise and intellectuality, whereas undifferentiated subjects were the most socially awkward and nonintellectual. . . . the two sex-typed categories fell in between but did not differ from one another" (p. 1109). Jones et al. (1978) found that, "A pattern emerged in which masculine males can be described as more competent and confident on numerous dimensions, whereas less traditionally sex-typed males are generally more limited and restricted, less effective and more vulnerable to influence, less sure of themselves, and perhaps even less well adjusted" (p. 310). The Undifferentiated men over 60 years of age in this study not only had the most internal locus of control but their role consistency scores did not differ from the Androgynous and Masculine-typed men in this age group. It is speculated that for these Undifferentiated men over 60 years of age, cultural age role expectations tend to de-emphasize sex-role and allow these men to diminish those qualities associated with masculinity without impinging on their sense of identity. These men did not seem to face the difficulties of the college age Undifferentiated subjects nor did they seem to be at a psychological adjustment disadvantage.

This study conceives of sex-role identity as a part of the larger framework of self-identity. Under this rubric, the Androgynous individual is seen as one who has a sense of self strong enough to counter or ignore cultural prescriptions associated with sex-appropriate behaviors. The data lend support to this concept. There appears to be a psychological advantage associated with Androgyny, across all age groups. The Androgynous individuals were not only high in self-esteem but also had high role consistency scores and were internal in locus of control. Perhaps a more cogent and intriguing piece of information in support of the notion that sex-role identity interacts with age role is that the Feminine-typed and Undifferentiated individuals were not at a psychological disadvantage, as is usually true for the college age individual, when the developmental stage is taken into account. Feminine-typed females were not necessarily at a psychological disadvantage within the three older age categories; and the Undifferentiated males over 60 years of age had the most internal locus of control and relatively high role consistency scores.

Relationship of Sex-Role Identity to Demographic Data

Hypotheses 5 and 6 were concerned with demographic characteristics that have been found to differentiate women along the dimensions of sex-role categories. In general, it was hypothesized that those women who have a self-identity secure enough to violate sex-role expectations would be more likely to behave in a manner counter to other cultural expectations. Hypothesis 5 predicted that a significantly greater proportion of Masculine-typed and Androgynous women would be employed full-time or part-time. Hypothesis 5 was confirmed. A

significantly greater number ($\chi^2 = 8.24$) of working women fell into the Androgynous and Masculine-typed categories in comparison to women who fell into the non-working housewife category.

Hypothesis 6 predicted that a greater proportion of the women in the "un-traditional" marital status category would be Masculine-typed or Androgynous, in comparison to women in the more traditional marital status category. The difference in distribution was not significant but was skewed in the hypothesized direction with 51% of the women in the "un-traditional" marital status category falling into the Masculine-typed and Androgynous categories and only 30% of the traditional marital status group falling into these same sex-role categories. These results provide evidence that women who endorse a high degree of "masculine" characteristics also demonstrate these qualities in real-life behavior.

It is fairly clear that internalized images of what it is to be a proper woman or man acquires the capacity to exert considerable psychological pressure on our behaviors and our self-concept. There is also an indication of some interrelationship between age role prescriptions sanctioned by society and an individual's global self-perception of masculinity and femininity. While a longitudinal study is the method of choice for such research, the present findings are provocative and suggest that future research might explore more fully the developmental pattern of sex-role identity in adulthood and into senescence.

CHAPTER 5 SUMMARY AND CONCLUSIONS

This study was undertaken to explore the concept of sex-role identity and its interrelationship with gender and chronological age. Sex-role identity was viewed within the new conceptualization of the psychological dimensions of masculinity and femininity that allows for the possibility that a person may develop both masculine and feminine attributes. Thus, the measure of sex-role adopted for the study conceives of masculine and feminine attributes as separate and essentially orthogonal. The selection of older subjects was based on the desire to approximate the much studied college population. Thus, the older subjects are intellectually elite and more representative of the general population.

The college female population is of particular interest in terms of sex-role identity because data from past research consistently indicate that Feminine-typed college females are at a psychological adjustment disadvantage. In college, males and females alike are preoccupied with questions about their identity, about their relations with others, their worth, and about the direction their life is taking. A male approaches late adolescence fairly secure in his masculinity because, in our culture, the masculine role is more highly valued and more clearly defined and there is not only a continuity of role expectations over his lifetime but also a consistency of role models in the entire culture.

On the other hand, adolescence is probably the first critical period for sex-role identity for females. Prior to adolescence, sex-identity for females is not as clearly defined or societal sanctions as rigidly enforced. Until late adolescence, appropriateness of behavior for her is more often determined by age than by sex, and she is permitted to participate in what will later be perceived as masculine activities. During adolescence, the female is confronted with the prospect that achievement success (the culturally masculine and more valued qualities) may be seen as threatening affiliative success (internalized feminine values by which she measures her success as a woman).

This study conceives the essence of this conflict not at the behavioral level but as internal and psychological and as an important part of the process of establishing a self-identity. To this end, Block's conceptual framework was presented which integrates changes in sex-role definition with changes in developmental tasks. The psychological adjustment disadvantage accruing to the Feminine-typed college age individual was regarded as a reflection of the conflict inherent in maintaining a feminine-identity in a society that prefers and rewards masculine characteristics at a time when her self-identity is in question. It was hypothesized that once a female comes to grips with her sex-role identity and establishes a comfortable identity as a person, whatever the outcome, sex-role identity per se will cease to be such a salient force within self-identity. As hypothesized, the college age Feminine-typed individuals produced a pattern of scores on the measure of self-identity that indicated poor psychological adjustment, relative to their age mates. On the other hand, within the other three age groups there

were no consistent or significant correlations with the measures of self-identity associated with maintaining a feminine identity.

Additional support for the hypothesis that the significance of sex-role identity in relation to self-identity changes with developmental stages, was found with reference to the oldest age group. A large number of men over 60 years of age fell into the Undifferentiated category. Past research has often supported the notion that the Undifferentiated college age individual is at a psychological disadvantage because he or she has a smaller repertoire of behaviors to adjust to environmental demands. The self-identity scores of the Undifferentiated men over 60 years of age in this study were indicative of psychologically secure individuals. It is speculated that because our culture tends to de-emphasize sex-role identity for the aged individual; men over 60 years of age can diminish their masculine qualities without feeling "unmanly" or experiencing psychological disadvantages.

This study presents data which indicate that internalized images of what it is to be a man or woman changes in response to changes in developmental tasks. The cultural expectations and demands differ at each developmental stage, with differential implications for males and females. The present findings suggest a longitudinal study would be the method of choice to clarify the interaction of sex-role identity with gender and age role beyond late adolescence.

APPENDIX A
UNIVERSITY OF FLORIDA
DEPARTMENT OF PSYCHOLOGY CONSENT FORM

Subject's Name _____

Subject's Address _____

Project Number 907 Project Title Interaction of Age, Gender,
and Personality Variables

Principal Investigator Tetsuko Suzuki Date _____

I agree to participate in the research as explained to me below:

The development of personality in the early years of life has been extensively examined; but there has been little developmental study of adulthood. There has been widespread acceptance of the view that personality is stabilized by the time early adulthood is reached. However, there are some indications that personality may continue to change over time. We are assuming that people continually revise, reverse and add new connotations to their self-concept. This study is designed to explore the changes, if any, that take place in how a healthy, active, functioning individual views his or her self between the ages of 18-70 years. You will be asked to answer four questionnaires, which are self-descriptive. You will be assigned a number and no individual will be identifiable in the final analysis. If you are interested, and so indicate, we will be glad to send you our results when the study is completed.

The above stated nature and purpose of this research, including discomforts and risks involved (if any) have been explained to me verbally by _____. Furthermore, it is agreed that the information gained from this investigation may be used for educational purposes which may include publication. I understand that I may withdraw my consent at any time without prejudice.

Signed _____

APPENDIX A - continued

I have defined and fully explained this research to the participant
whose signature appears above.

Signed _____

APPENDIX B

DEMOGRAPHIC DATA

SUBJECT NUMBER _____

DATE _____

SEX _____

AGE _____

Circle One Number of Specify:

Marital Status:

1. Married
2. Single (never married)
3. Divorced
4. Widowed
5. Separated
6. Remarried
7. Other: Specify _____

Education:

1. Graduate or professional training
2. Standard College or University Graduate
3. Partial College Training
4. High School Graduation
5. Partial High School
6. Other: Specify _____

Major Occupation: _____

If retired, indicate major occupation before retirement.

If student, specify present level: 1. Graduate Student;
2. Senior; 3. Junior; 4. Sophomore; 5. Freshmen

Career Status

1. Fulltime Housewife
2. Working Fulltime
3. Working Parttime

Number of children _____ Ages of children _____

If retired, age of retirement _____

APPENDIX B - continued

Was your retirement by

1. Choice
2. Set by company or institution
3. Other: Specify _____

APPENDIX C
BEM SEX-ROLE INVENTORY

SUBJECT NUMBER _____

DATE _____

SEX _____

AGE _____

On the next page you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe yourself. That is, we would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. PLEASE DO NOT LEAVE ANY CHARACTERISTICS UNMARKED.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS TRUE OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly," never or almost never true that you are "malicious," always or almost always true that you are "irresponsible," and often true that you are "carefree," then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

APPENDIX C - continued

1 2 3 4 5 6 7

NEVER OR ALMOST NEVER TRUE	USUALLY NOT TRUE	SOMETIMES BUT INFREQUENTLY TRUE	OCCASIONALLY TRUE	OFTEN TRUE	USUALLY TRUE	ALWAYS OR ALMOST ALWAYS TRUE
-------------------------------------	------------------------	---------------------------------------	----------------------	---------------	-----------------	---------------------------------------

Self reliant	
Yielding	
Helpful	
Defends own beliefs	
Cheerful	
Moody	
Independent	
Shy	
Conscientious	
Athletic	
Affectionate	
Theatrical	
Assertive	
Flatterable	
Happy	
Strong personality	
Loyal	
Unpredictable	
Forceful	
Feminine	
Reliable	
Analytical	
Sympathetic	

Jealous	
Has leadership ability	
Sensitive to the needs of others	
Truthful	
Willing to take risks	
Understanding	
Secretive	
Makes decisions easily	
Compassionate	
Sincere	
Self-sufficient	
Eager to soothe hurt feelings	
Conceited	
Dominant	
Soft-spoken	
Likable	
Masculine	
Warm	
Solemn	
Willing to take a stand	

Tender	
Friendly	
Aggressive	
Gullible	
Inefficient	
Acts as a leader	
Childlike	
Adaptable	
Individualistic	
Does not use harsh language	
Unsystematic	
Competitive	
Loves children	
Tactful	
Ambitious	
Gentle	
Conventional	

APPENDIX D
TEXAS SOCIAL BEHAVIOR INVENTORY

SUBJECT NUMBER _____ DATE _____

AGE _____ SEX _____

Read each statement carefully and put an X above the response that describes you best. For example: If 1. I am not likely to speak to people until they speak to me. is almost always true for you, put an X above Very much characteristic of me.

1. I am not likely to speak to people until they speak to me.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

2. I would describe myself as socially unskilled.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

3. I frequently find it difficult to defend my point of view when confronted with the opinions of others.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

4. I would be willing to describe myself as a pretty "strong" personality.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

APPENDIX D - continued

5. When I work on a committee, I like to take charge of things.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

6. I would describe myself as self-confident.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

7. I usually expect to succeed in the things I do.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

8. I feel confident of my appearance.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

9. I am a good mixer.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

10. I feel comfortable approaching someone in a position of authority over me.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

11. I enjoy being around other people, and seek out social encounters frequently.

Not at all characteristic of me	Not very	Slight	Fairly	Very much characteristic of me
---------------------------------------	----------	--------	--------	--------------------------------------

APPENDIX D - continued

12. When in a group of people, I have trouble thinking of the right things to say.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

13. When in a group of people, I usually do what the others want rather than make suggestions.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

14. When I am in disagreement with other people, my opinion usually prevails.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

15. I feel confident of my social behavior.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

16. I feel I can confidently approach and deal with anyone I meet.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

17. I would describe myself as one who attempts to master situations.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

18. I would describe myself as happy.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

APPENDIX D - continued

19. Other people look up to me.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

20. I enjoy being in front of large audiences.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

21. When I meet a stranger, I often think that he is better than I am.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

22. I enjoy social gatherings just to be with people.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

23. It is hard for me to start a conversation with strangers.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

24. People seem naturally to turn to me when decisions have to be made.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

25. I make a point of looking other people in the eye.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

APPENDIX D - continued

26. I feel secure in social situations.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

27. I like to exert my influence of other people.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

28. I cannot seem to get others to notice me.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

29. I would rather not have very much responsibility for other people.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

30. I feel comfortable being approached by someone in a position of authority.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

31. I would describe myself as indecisive.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

32. I have not doubts about my social competence.

Not at all characteristic of me	Not very	Slightly	Fairly	Very much characteristic of me
---------------------------------------	----------	----------	--------	--------------------------------------

APPENDIX E
LOCUS OF CONTROL (I-E SCALE)

SUBJECT NUMBER _____ DATE _____

AGE _____ CIRCLE ONE: MALE FEMALE

PLEASE CIRCLE THE LETTER THAT CORRESPONDS TO THE STATEMENT WHICH BEST FITS HOW YOU FEEL. CHOOSE ONLY ONE ANSWER. ANSWER EACH ITEM. IF YOU CHANGE AN ANSWER, BE SURE TO ERASE COMPLETELY. YOU MAY BEGIN NOW.

1. a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. a. Without the right breaks, one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. a. No matter how hard you try, some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.
8. a. Heredity plays the major role in determining one's personality.
b. It is one's experiences in life which determines what they are like.

APPENDIX E - continued

9. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, lucky as little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power and there is not much the little guy can do about it.
13. a. When I make plans I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case, getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first-
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b. By taking an active part in political and social affairs, the people can control world events.
18. a. Most people don't realize the extent to which theirs lives are controlled by accidental happenings.
b. There really is no such thing as luck.
19. a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.
20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.

APPENDIX E - continued

21. a. In the long run, the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness or all three.
22. a. With enough effort, we can wipe out political corruption.
b. It is difficult for people to have much control of the things politicians do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying hard to please people, if they like you, they like you.
27. a. There is too much emphasis on athletics in high schools.
b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction of my life.
29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run, the people are responsible for bad government on a national as well as on a local level.

APPENDIX F
ROLE CONSISTENCY

SUBJECT NUMBER _____

DATE _____

SEX _____

AGE _____

You will be given 20 cards with self descriptive adjectives printed on them. These same 20 adjectives will be listed on the next page, along with eight interpersonal situations. We would like to have you imagine yourself interacting with each of the eight persons, one at a time, and describe yourself using the 20 adjectives.

First, imagine yourself interacting with SOMEONE IN WHOM SEXUALLY INTERESTED (the first interpersonal situation on the next page). Please think of a real person in your life. Second, as you go through the 20 adjectives, divide them into two piles. One pile should contain the adjectives that are "like me" with him or her and the other pile should contain the adjectives that are "not so much like me" with him or her. Third, take the pile of "like me" cards and arrange them from 1 - "most like me" in a series to 10 "less like me." Fourth, take the second pile of cards that are your "not so much like me" pile and also arrange them in a series from 11 "sometimes like me" to 20 "least like me" with him or her.

Now you should have your 20 adjectives arranged so that card number 1 describes you as I am most----(Ex. I am most WITTY (your choice) with SOMEONE IN WHOM I AM SEXUALLY INTERESTED); to card number 20 which describes you as I am least----(Ex. I am least INDIFFERENT (your choice) with SOMEONE IN WHOM I AM SEXUALLY INTERESTED.)

On the next page, in column 1 under SOMEONE IN WHOM SEXUALLY INTERESTED record the correct numbers. For example, if you had selected WITTY as your first card (most like me), INDEPENDENT for your second card. . . FORMAL as your 19th card, and INDIFFERENT as your 20th card; you will record:

Relaxed	..
Formal	19
Indifferent	20
Warm	..
Independent	2
Witty	1

APPENDIX F - continued

In this example, you are describing yourself as being almost always WITTY, usually INDEPENDENT, seldom FORMAL and never or almost never INDIFFERENT when interacting with the particular someone you have picked for SOMEONE IN WHOM SEXUALLY INTERESTED.

Perform the same sorting procedure with each of the seven "persons" one at a time. For each situation, be sure to pick a real person in your life that fits the category. Carefully record the proper numbers on the next page.

If you do not understand any part of this procedure, please ask for clarification before proceeding.

APPENDIX F - continued

<u>RELAXED</u>	<u>SOMEONE IN WHOM SEXUALLY INTERESTED</u>
<u>FORMAL</u>	<u>ACQUAINTANCE DON'T CARE MUCH ABOUT</u>
<u>INDIFFERENT</u>	<u>EMPLOYER OR SOME OTHER AUTHORITY FIGURE</u>
<u>WARM</u>	<u>CHILD</u>
<u>INDEPENDENT</u>	<u>MOTHER OR MOTHER FIGURE</u>
<u>WITTY</u>	<u>FATHER OR FATHER FIGURE</u>
<u>COOPERATIVE</u>	<u>CLOSE, SAME SEX FRIEND</u>
<u>ASSERTIVE</u>	<u>SOMEONE YOU'D LIKE TO KNOW BETTER</u>
<u>INDECISIVE</u>	
<u>DISTRACTIBLE</u>	
<u>HUMOROUS</u>	
<u>INSINCERE</u>	
<u>MASCULINE or FEMININE</u>	
<u>WISE</u>	
<u>UNSELFISH</u>	
<u>TRUSTING</u>	
<u>WORRYING</u>	
<u>SUGGESTIBLE</u>	
<u>RESPONSIBLE</u>	
<u>PROTECTIVE</u>	

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Tetsuko Fujita Suzuki was born on September 16, 1929, in Wailuku, Maui, Hawaii. She completed her first two years of college at the University of Hawaii and transferred to the University of Michigan in 1949. In 1951, she received the Bachelor of Science degree from the University of Michigan with a major in biology.

She returned to the University of Hawaii in 1951 to pursue graduate studies in experimental embryology. In 1959 she married Howard K. Suzuki and spent the next 18 years rearing and learning from her children, Georganne, Joan, Jimmy, and Stanley Suzuki.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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